LEVEL UP!

HOW **VIDEO GAMES** CAN MAKE YOU A **BETTER JOURNALIST**

NEWS

CAIO SAMPAIO

Level Up

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How Video Games Can Make You a Better Journalist

Caio Sampaio

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THIS BOOK'S UNLIKELY INSPIRATION

Speed has always fascinated humans. When cars became available to the public, people started competing to determine which machine was the fastest and which driver was the bravest. These individuals' competitive nature compelled them to seek ways to get an edge over each other. As a result, they began modifying their engines to extract as much power as possible from them. This arms race happened throughout motorsports, from NASCAR to Formula 1. In the latter, Colin Chapman started his team in 1958.[1] He wanted to dethrone some of the most successful organizations in history but only had a fraction of their budget. The only way for him to stand a chance was to be creative. So, he decided to do the opposite of his biggest rival.

Ferrari was a prominent player in this engine development arms race. "Bigger and more powerful" was its philosophy, and many teams followed the same principle. It paid them dividends, and Chapman knew he'd never beat them at their game. Thinking of making cars go faster without developing larger motors, he borrowed ideas from aviation. This inspiration source made him focus on building a vehicle that'd be less powerful than its competitors but significantly lighter and more agile. The result? His team won its first Formula 1 title in 1963. But there was no time to celebrate.[2] Chapman knew he needed to stay ahead of his competition. He continued getting insights from airplanes to do so.[3]

Do cars need wings? Common sense would say "no," but Chapman disagreed. An airplane flies because its airfoils redirect the airflow to produce an upwards force.[4] Chapman reasoned that turning them upside-down would create a downwards push instead, which he could use to press a car harder against the asphalt, giving it more grip and allowing it to take corners faster. This principle became known as "downforce."[5] With this idea in mind, in 1968, he attached inverted wings to a car, as pictured in the following image (figure 1). The results were thunderous. Chapman's team was victorious in the Formula 1 world championship five times in a decade.[6] Although he died in 1982, his legacy lives on.[7]

Figure 1. The Louts 49B features front and rear wings. (Credit: Morio)

Chapman's Formula 1 success sparked a revolution. Manufacturers stopped obsessing solely about straight-line speed as they started using downforce to make their cars take corners faster. Racing teams also began using other concepts Chapman borrowed from aviation,

like the "ground effect." This technique manipulates airflow under the car to suck it against the asphalt, gluing it to the track's surface.[8] As you can see, he taught the racing world many lessons that persist today. And you can learn from him, even if you're a journalist with no ambition to build a high-performance automobile.

Life's unpredictable. You may need to solve a professional problem that seems unsurpassable. Going against common wisdom can help you in these moments. Look at Colin Chapman. He rejected the design philosophy prevalent in the 60s and built cars using aviation concepts. The rest is history. This story's moral is that no matter how complex your dilemma is, another industry may have already found its solution. But you'll only learn of it if you think outside the box and explore unconventional inspiration sources. As the following pages explain, this lesson shows how Chapman inspired this book.

INTRODUCTION

Being a successful journalist has become more challenging than ever. You live in a time when most individuals worldwide can easily create and share content online, leading to one consequence. There's now an excess of media available on the internet, and the fight for people's attention has become unprecedentedly fierce. Traditional journalism has suffered under this new reality. Television, radio, and newspapers are losing significant portions of their "market share." Journalists adapted to this new world by learning to capture and retain people's attention in an age of distractions. Their secret was simple yet complicated. They learned how to use digital platforms to inform users more effectively, emotionally, and engagingly than they ever could through traditional reporting.

Journalists started creating highly engaging digital projects like virtual reality experiences, multimedia articles, and interactive documentaries. Through these efforts, journalism has adapted to an age of distractions, but today's success doesn't guarantee a prosperous tomorrow. The amount of content available on the internet grows exponentially daily. As a result, the competition for people's attention will continuously get fiercer. This scenario means one thing: professionals like yourself must keep looking for ways to stay ahead of this growing competition to ensure their future relevance. They know this reality and discuss it in books, articles, conferences, and other platforms.

The manuscript you're reading aims to contribute to this conversation, taking inspiration from Chapman's story. It teaches you how to do what he did 60 years ago: solve a critical problem by borrowing techniques from another field. In this case, the industry in question is video game design. The connection between entertainment's largest industry and the press may seem inexistent, but it's more sensible than you think.

Video game designers have been engaging audiences with virtual media since the 70s. As such, they've developed many techniques to hook people through digital content. You can use them in your online journalism projects. This book empowers you to do so. It features interviews with video game developers to reveal the secrets behind their most critically-acclaimed titles. These analyses then teach you how to apply such principles to your reporting, making it more engaging, informative, and emotional.

Read below the list of interviewees:
- Amanda Gardner (Lead Writer of *Perception*)
- Chris Crawford (Author of *Chris Crawford on Game Design*)
- David Di Giacomo (Level Artist in *Dishonored 2*)
- Ian Bogost (Coauthor of *Newsgames: Journalism at Play*)
- Jesse Schell (Author of *The Art of Game Design*)
- Ken Levine (Writer and Creative Director of *BioShock*)
- Mark Darin (Writer of *The Walking Dead: Season One – Episode Two*)
- Navid Khonsari (Writer and Director of *1979 Revolution: Black Friday*)
- Sam Barlow (Writer and Director of *Her Story*)
- Wojciech Setlak (Writer of *This War of Mine*)

This book resulted from four years of research. It started as a bachelor's dissertation in Brazil, later expanding into a master's thesis in Portugal. Now, it's become the manuscript you're reading, which features the following three parts:

Part I – Humankind, Redefined: it discusses how cyber technologies have changed humanity and why video games can help journalists adapt to this new reality.

Part II – Leveling up Journalism: case studies dissecting video games to understand how their design techniques can create more engaging online journalism content.

Part III – The Road Ahead: it shows how new technologies will change game design and how to use the techniques of tomorrow.

It's time for you to get started. Learn how video games can help you become a better online journalist. Level up!

PART I

HUMANKIND, REDEFINED

1

TECHNOLOGY HAS CHANGED YOU

—❧—

People have changed. This statement may seem obvious, but it's critical for your future. Humans have been changing for millennia, but the previous two decades have altered their behaviors unprecedentedly, including how they consume, create, and share content. Since the way individuals interact with media has shifted, you must develop new skills to inform them effectively. You'll learn in this chapter about this historical moment and how it impacts your career. It all started with a technological revolution.

EASIER, BETTER, FASTER, STRONGER

Your smartphone is over a million times more powerful than the computer NASA developed to land on the Moon in 1969.[1] This fact may have surprised you, but not researchers. They knew this technological leap would happen. In 1965, Gordon Moore established Moore's Law. It stated that computers would double their power biennially.[2] His original prediction held for almost 50 years. You can

imagine how much the capabilities of digital devices skyrocketed in five decades of exponential growth.[3] But they went beyond getting stronger. They also kept shrinking, both in cost and size. This trend had a consequence in the early 2000s: media convergence.[4]

It refers to the tendency of devices to converge as they shrink, creating new ones. The best example is your smartphone. It's the convergence of a computer with a mobile telephone and many other equipment types, such as:

- Video recorders.
- Photographic cameras.
- Radios.
- Editing tables.
- And many others.[5]

There was a time when you'd need thousands of dollars to purchase all this equipment. You'd also need a large room for storage. Now, you can use all these devices through your phone, which has become as potent as a personal computer while being small enough to fit inside your pocket. And this scenario led to a consequence besides the ones already mentioned here. People also started converging, but not with each other.

(Un)foreseen Consequences

What do you do after waking up? Check your phone, probably. 71% of people do the same.[6] But your morning routine is only the beginning. You use your smartphone throughout the day to get to work, perform bank transactions, search for where to eat, chat with friends, etc. After so many technologies converged with this device, it has become your life's central hub. This situation leads to a paradox. You

always have it with you, and it's critical for your routine. Yet, you use it unconsciously, like an arm. You've converged with it. You and many others. 87% of millennials report that they always carry their smartphones.[7] There's one thing to say about these numbers.

WELCOME TO THE POST-DIGITAL AGE

This term may sound counterintuitive. How can the digital era have ended when virtual technologies are so well-integrated with society? They're everywhere. And you use them without a second thought. Think about the internet, for example. It's like electricity. You use it, but it has become so mundane that you only remember its existence during an outage. And you're never offline, either. You always carry your phone. It's your life's central hub. So, with all that said, how has humanity left the digital age behind?

According to researcher Walter Longo, the previous paragraph perfectly described the post-digital age. It's the time when society has become thoroughly integrated with virtual technologies. You've become so intimate with them that you use them without thinking. Your mind has moved on from digital technologies, hence the "post-digital age." It's the time after people gave digital devices any thought, having converged with them.[8] Humans have always been in mutation, but this change is unprecedented, and another aspect defines this historical moment: democratization.

Digital devices have gotten more potent while becoming smaller and increasingly cheaper, leading to a consequence. They've become accessible to most people worldwide, as Huawei exemplified. In 2011, this Chinese company created a smartphone designed specifically for underdeveloped nations, selling it in Kenya for $85. It sold 350,000 units in this country.[9] This result is expressive in a market where 60% of people survive on less than two daily dollars.[10] Similar efforts

from enterprises worldwide have also shown impressive results in democratizing these devices. Consequently, there are now more than six billion smartphone users globally.[11] And this number led to a mediatic revolution.

INFORMATIONAL OVERLOAD

You may find yourself scrolling down your Facebook feed when bored. Most people do the same. But do you feel you can continue endlessly and never run out of posts to see? Your hunch is correct. The amount of media available on the internet has become virtually infinite, as most individuals worldwide have access to smartphones that allow them to create and share content quickly.

Look at some numbers:
- Users upload 350 million new photos to Facebook daily.[12]
- YouTube receives 500 hours of videos per minute.[13]
- People share 6,000 tweets on Twitter every second.[14]

This phenomenon goes beyond social media:
- Two hundred fifty thousand new websites open daily.[15]
- Bloggers publish 7.5 million posts in the same timeframe.[16]
- People created 885,262 new podcasts in 2020.[17]

These figures result from a world where creating and sharing media with a mass audience has ceased to be a privilege of wealthy groups. However, this rapid growth impacts more than the amount of content available on the internet. The number of people consuming it is also multiplying and will continue to do so.

Everyone aboard the magic balloon

Your daily number of Facebook visits has probably increased in the last ten years. It has for most people. The average time spent on social media daily has grown from 90 minutes in 2012 to 147 in 2022.[18] Other parts of the internet have grown as fast, like YouTube. A 2022 forecast expects it to surpass the number of one billion users in 2026.[19] This website also records more than a billion views daily.[20] Countless other statistics show the growth of online content consumption worldwide. Still, the figures in this paragraph are enough to understand its central argument: a skyrocketing number of individuals consume media in cyberspace. But why are they doing so?

You in wonderland

After reading the previous question, many answers may have gone through your mind.

For example:
- Watching videos and reading articles on a smartphone is more convenient.
- The internet holds a more extensive and compelling media library.
- The social features websites use to connect their users foster more engagement.

These are valid answers, but they're the iceberg's tip. Several psychological triggers make people rely on cyberspace to satisfy their mediatic needs, like the dopamine they receive when getting a notification from their favorite content creator. The following paragraphs will discuss one of them: self-determination theory. It argues that an activity must have three components to be engaging:

Autonomy: Self-determination theory states that when people can choose how to undertake an endeavor and influence its outcome, they find it more pleasurable.

Competence: An activity must allow participants to learn something new to motivate them to participate.

Relatedness: It stands for an activity's social aspect. People are more likely to find it attractive if it allows them to connect and interact with others.[21]

Consuming content online heightens these criteria:

Autonomy: In multimedia content, you can choose at which pace you go through it and in which order. Hyperlinks even allow you to dictate how much information you wish to receive on the topic.

Competence: With a more extensive data supply, the internet offers many more opportunities to absorb information, thus being a more pleasurable experience.

Relatedness: The internet connects you to people worldwide, turning content consumption into a more social experience.

Of course, each of these items can backfire. For example, too much autonomy can lead to choice paralysis. Likewise, your interactions with other people may be unpleasant. Still, when online content uses these three criteria effectively, it becomes significantly more engaging. So, self-determination theory is a critical factor behind why people have begun consuming digital media more often. But it's essential to remember one thing. The day only has 24 hours. Therefore, accessing the internet more frequently means using traditional media less and less.

The King is dying

These words may seem like an exaggeration, but they're not.

Look at some numbers:
- TV viewership fell by 16% in 2021 compared to 2017.[22]
- Radio lost 24% of its listenership from 2013 to 2022.[23]
- Newspapers in the US have shrunk from 1,200 copies per hundred million people in 1945 to 400 in 2015.[24]

Now, look at these two figures:
- The *New York Times* sold 1.4 million physical newspapers monthly in 2021.[25]
- Its website received approximately 125 million visitors monthly in 2022.[26]

You can see an unprecedented paradigm shift. Traditional forms of communication leaving the stoplight seemed impossible two decades ago. But where people consume content isn't the only thing that has changed. How they do so also has.

(Un)forgettable messages

Gone are the days of reading an entire text. After clicking on an online article, do you read it entirely? If you do, you're in the minority. People usually avoid reading on the Internet. The typical person reads the news online for only 30 seconds daily.[27] But they still absorb information despite each section's brevity. How? It's simple. Although many individuals don't consume a piece's entire content, they still skim through it, reading titles and searching for specific information. The CTRL + F feature greatly facilitates this attitude, allowing users to locate what they want quickly. 37% of internet users reported engaging in this behavior when reading the news.[28] This situation worsens in social media.

A 2017 study analyzed 500 Facebook pages to understand how audiences engage with audiovisual posts. Its conclusions are staggering. The average clip lasted three minutes and 48 seconds, but users watched a mere 10 seconds, with only 7% of them watching with sound.[29] Many other online media face the same problem. This reality could make you believe the internet has created a generation of imbeciles, but you should see this scenario differently if you wish to stay relevant.

PREPARING FOR A FIGHT

The communications world has become overwhelmingly competitive. It now features an overabundance of choices, and people have changed their content-consumption habits accordingly. They know there's an endless supply of information, so they start consuming a piece of media and move on to the next as soon as it ceases to be 100% interesting. They're confident that a piece of content in this mediatic ocean will eventually please them; they only need to keep skipping until finding it. Reading these words, you may have reached a harrowing realization. People nowadays expect constant stimuli, and a second of boredom is enough to drive them away. This reality complicates the life of journalists like you.

THE PAPER KINGDOM HAS FALLEN

You speak, but nobody listens. Did you say anything? No. When nobody consumes your information, you fail your journalistic duty, but informing the masses has become incredibly challenging. You must communicate with people in a world where the fight for their time has never been fiercer. This task is daunting, especially in journalism that tells lengthy stories, like long-form reportages and doc-

umentaries. Complicated, sure, but still possible. Therefore, the following pages will show how these two reporting types have evolved in the past two decades, adapting to a reality where you can no longer take people's attention for granted.

IF YOU CAN'T BEAT THEM...

Journalists started using the internet in the early 90s, long before the rise of online content. But physical newspapers were still their priority. As a result, reporters mostly used websites as repositories to store digital versions of their tabloids.[30] This approach raised two problems. The first was one of time. Editors and designers needed to finalize the paper gazette before uploading its contents. This *modus operandi* precluded using a critical internet benefit: instantaneity. The news was available only several hours after the incident. This situation was suboptimal, and another drawback was that this approach underutilized the internet's defining feature. To understand what it is, ask yourself a question.

What differentiates computers from other communication tools? You could argue that they can display various media formats. You could also say they can connect people worldwide, but you'd be mistaken. Remember this machine's most crucial component: the CPU, which stands for "Central Processing Unit." It processes data and inputs, allowing this device to be interactive.[31] Think about opening a file. You double-click its icon. The system understands and "thinks" about your request, giving you the desired outcome: the document is open and ready for use. Journalists failed to utilize this feature in the early days of online journalism. Their oversight created that era's second problem: the lack of hyperlinks.

An online newspaper used to be a mere copy of its physical counterpart. As such, it didn't include the most critical feature of online content: hyperlinks. They allow users to interact with a web page, clicking on certain parts to go to other pages. Such action is mundane today, but it was revolutionary back then. People controlled their content-consumption experience, effortlessly choosing how far they wanted to go into a specific topic. Combining this feature's absence with the lack of instantaneity makes it easy to understand why people had little incentive to follow digital news sources in the late 90s. Journalists were complacent with this reality. Physical newspapers were still King, after all.[40] You know how this story ends, however. Their paper kingdom collapsed.

You've seen the numbers. Newspaper readership started plummeting during the 2000s as people spent more time online. This reality left journalists without a choice. They needed to start prioritizing the Internet. But, they couldn't keep using the same old-fashioned approach from the late 90s. It was the antithesis of what people expected from online content. Considering this situation, journalists started developing interactive content designed exclusively for the web.[32] This pursuit led them to an experimentation period, and 2012 was when they struck gold.

Greatness after humble Beginnings

Take a look at *Snow Fall: The Avalanche at Tunnel Creek*.[33] The journalist John Branch used this article to tell the story of an avalanche in Washington. It describes the hours preceding the disaster and its victims' fight for survival. Readers and critics praised this project, which won several awards. This success resulted in its author receiving the

highest journalism honor: a Pulitzer.[34] *Snow Fall* received so much attention for various reasons, but what stood out the most was how it developed its narrative. Branch combined multiple media formats in one project.

These media types include:
- Texts.
- Interactive graphics.
- Photos.
- Videos.

He used them to develop an interactive experience. These elements create a more exciting narrative by heightening the user's autonomy. For example, some readers may watch the videos and then read the text. Others may see the pictures and then interact with the graphics. Branch knew how to leverage the digital technologies available to him to turn his vision into reality. But you can still be successful on the internet with traditional media. You only need to change how you approach it.

ONCE UPON A TIME...

How much do you remember from the documentaries you watched in school? Probably not much. Those films were monotonous. There were exceptions, of course, but they used to be video lectures, in which a narrator teaches an audience while some images appear in the background. This unengaging content type was incompatible with an age of distractions. Journalists, therefore, adapted. They started using storytelling techniques to engage people, turning their documentaries into stories.[35] This philosophy change may sound insignificant but never underestimate the power of well-crafted narratives. Your brain craves them.

Stories played a significant role in humanity's survival. When your ancestors were still living in caves, hunters and elders needed to share information critical for the tribe's survival, like how to hunt, which fruits were safe for consumption, and more. They shared this knowledge mainly through stories told at their campfires. Missing out on them could lead you to a fatal mistake. So, the human brain evolved to avoid preventable deaths and ensure the species' continuation by becoming hardwired to pay attention to narratives.[36] People today still crave tales. So when journalists started using storytelling techniques in their documentaries, they noticed a boost in interest in nonfiction films.

The popularity of documentaries is rising. For example, in the United Kingdom and Ireland, the number of nonfiction films produced yearly skyrocketed from four in 2001 to 110 in 2018.[37] They've also become the fastest-growing streaming genre.[38] These facts show what journalists could accomplish by changing their approach to traditional media, teaching you a vital lesson: long-form content can thrive in an age of distractions.

Good ending: the best is yet to come

People have changed. So did their content-consumption habits. This scenario may have seemed bleak, but the future is still bright for a journalist who wishes to develop the skill set necessary to thrive in this new moment for humanity. Meeting the expectations of the most demanding audience in history is undoubtedly daunting, but so is anything worth doing. So, you'll learn in the next chapter further advice on informing the masses in a more informative and engaging way than traditional media could afford. Learning this information is paramount. You're part of the first generation of journalists informing digital citizens. Humankind, redefined.

2

THE INTERNET HAS CHANGED JOURNALISM

Everything has changed. The previous chapter showed you that this statement is far from hyperbolic, but it's time to go further. You'll learn of another consequence of the post-digital age and why it has made practicing journalism more challenging than ever. Then, you'll read about the new reporting types journalists have created to overcome all these difficulties. Finally, you'll understand how these solutions highlight the need for professionals like you to develop a vital skill: creativity. This analysis starts by returning to a day that changed the world and transformed the press.

UNITED, THEY STAND. TOGETHER, YOU CHANGE

The thundering sound of an explosion echoes through the streets. Fiery debris rains down on Earth. A vibrant city once pulsed with life, but now it's petrified in terror. People couldn't believe their eyes when they saw the World Trade Center erupting in flames. They wanted answers. Individuals globally wished to know as much as

possible about the terrorist attack, and it was the media's duty to share all the details. It was easier said than done, however. Due to the catastrophes' colossal scale, new facts emerged every second, and traditional journalism lacked the agility necessary to report all these new findings. Frustrated, people went to the internet and changed reporting forever.

Users relied on web pages and forums to share what they knew about the terrorist attack. They talked about what they had witnessed and heard, combining their experiences with what the media had reported. The result was a more detailed description of the events, turning the internet into an extensive database on 9/11. This movement impacted the American press significantly. It made journalists realize they could access more information by monitoring what people shared online. Above all, these professionals understood they could use the online world to almost instantly know about an incident. This collective epiphany allowed reporters to start building today's digital reporting principles.[1]

Fast-forward to the present day. The internet has become a critical tool for journalists to gather information and receive breaking news, primarily through social media. Facebook and Twitter have become vital sources for reporters.[2] Celebrities, politicians, organizations, and more share their updates on these websites. Forums like Reddit have also become valuable tools. Public figures often use them to make announcements and perform "Ask me Anything" sessions with their fans, sometimes leading to newsworthy discoveries. This scenario granted reporters unprecedented access to information. But it has also created another significant drawback that forced them to change their work.

EYES EVERYWHERE

More than 65% of people worldwide have access to the Internet.[3] This situation creates a problem for journalists. Most news consumers access social media websites, meaning they receive the same information the press does. They also get it at the same time. This scenario means one thing: reporters can no longer merely report facts. Doing so would be redundant. Why would anyone read a journalist's online article announcing something if the organization making the announcement has already shared it on Facebook? So, professionals like you must offer people something beyond the facts to stay relevant. The best way to do so is to understand that the news has stopped being journalism's final product. It has become the raw material instead.

THE END IS NEVER THE END

Journalists still write news. But they expand upon it through other articles. These can share an incident's context, opinions, multimedia content, etc.[4] Also, reporters can update the original piece in developing narratives, creating an easily-accessible timeline.[5] Through these efforts, press professionals differentiate their product from its source material, ensuring people will click on it. However, capturing their attention is only half the battle. Retaining their focus is another struggle. But it's still possible. As you read in the previous chapter, documentaries and online long-form articles managed to adapt. But they were only the starting point. Journalists also created new content types to keep users engaged.

A whole new (virtual) world

Humans are emotional creatures. Journalists looking to adapt to the age of distractions use this fact to their advantage. You know how these professionals have changed their approach to documentary filmmaking by engaging their audiences through storytelling.[6] Some reporters, however, have decided to go further. They began investing in technology that puts people inside a story, making them live through it instead of watching it. This digital marvel has a name: virtual reality (VR).[7] This medium heightens people's engagement with a narrative due to "immersion."[8] You may have seen this term before.

Has a piece of media ever made you feel so entranced that you forgot about the real world? Your answer is probably "yes." This phenomenon is immersion, also known as "special presence." It's what you experience consuming content so engaging that your brain thinks you're in its world.[9] Virtual reality is the most effective medium for creating this illusion.[10] There are different levels of immersion, but a VR headset physically isolates you from the real world and takes you to a digital one, ensuring the experience will be as immersive as possible.[11] The result is visceral and engaging storytelling. So, journalists started using this medium to hook their audiences.[12]

A prime example of virtual reality journalism is *Congo VR*.[13] Released in 2018, this production contains three parts, each taking you on a digital trip through this African country. The project aims to show users that this nation is more than its stereotype of war, drugs, and starvation. In the series' first episode, you travel through its capital, while the second features a fishing community. The final installment has you exploring a rainforest and observing endangered species.[14]

This immersive experience highlights how journalism can use VR to bring you closer to a story. You'll learn more about this subject in chapter four, but it's time to address a thought that may have crossed your mind when reading this paragraph.

Should journalists pursue virtual reality experiences? After all, how many people would consume content in VR? "Not many," you may think. You may have based your assessment on the fact that few individuals own these headsets. You're mistaken, however.

Look at some numbers:
- There are more than 50 million VR headset owners in the United States.[15]
- The virtual reality industry was worth $21 billion in 2021.[16]
- The VR market may reach $80 billion by 2030.[17]

Virtual reality headsets are still novelties compared to mainstream media, but the numbers above show that they're a worthwhile pursuit for journalists, and they've taken note. These professionals have even started investing in other immersive technologies.

WHEN WORLDS COLLIDE

Augmented Reality (AR) has grown in popularity alongside VR.[18] You've probably seen it in gaming, but here's a summary if you haven't. AR consists in combining the real world with the virtual one. You see the physical environment around you through a digital device's screen, like a smartphone, which overlays information onto the image you see. The example that's perhaps most familiar to you is *Pokémon GO*.[19] This title makes you walk through actual streets, see-

ing them through your cellphone's display, and it overlays the game's characters on the screen. People can use this innovation in many scenarios besides gaming, including journalism. This industry's been using AR for more than a decade.

Esquire Magazine experimented with AR in 2009. It created an interactive cover for its print edition. It prompted readers to hold the publication in front of a webcam. Upon following these instructions, you could see the models changing clothes. You could also listen to them making jokes.[20] This idea may seem attractive, but it failed to convince subscribers it was worthwhile. It was amusing but also a gimmick. It gave people a few moments of enjoyment, but they were unlikely to use the feature again. They read magazines to be informed, and *Esquire* used AR in a way that didn't make its product more informative, hence its failure.[21] Other journalists have learned from this mistake.

USA Today invested heavily in AR in 2020.[22] It focused on creating interactive, informative content. An example of this approach is the experience titled *Ken State Shootings: A Day of Tragedy.*[23] It tells the story of the death of four students in 1970. National Guardsmen killed them during a violent protest against the Vietnam War.[24]*USA Today* shared this narrative through an app that lets you use your phone's display to project a map onto any surface. It details that tragic day's events. This example is one of many others that this American journalism group has been producing, and it's pleased with its results. Remember a number you read in the previous chapter to understand why.

People read news online for 30 daily seconds, on average.[25] However, augmented reality content has a significantly higher engagement time: 125 seconds.[26] This number shows that AR can contribute considerably to journalism's goal of capturing and retaining people's

attention. But you may be skeptical of this claim. After all, this medium has the same problem as VR: you see few people using it. Based on this fact, you may think that investing in this content type is futile, but you should reevaluate your assessment.

Look at some numbers:
- USA Today had 1.3 million views across eight AR apps in 2020.[27]
- The number above represents a 288% increase over 2019.[28]
- The global AR market may reach $84 billion in 2024.[29]

These figures tell you one thing. AR is gaining popularity, and investing in this technology can pay dividends. This scenario could be your opportunity to be a revolution's early adopter, but not all is perfect. For example, a 2023 study reached a noteworthy conclusion. Volunteers reported that this technology made the content more engaging but failed to make it more informative.[30] Therefore, a journalist aiming to develop an educational project must pair an AR experience with other media types. One way to do this would be through a multimedia article, like *Snow Fall*[31] from the previous chapter, but there's another approach you can use.

An end is just another beginning

You learned in the previous passage that you can now use many platforms to consume content. This reality started a concept called "transmedia narratives." This term refers to a story an author chooses to tell through various media types.[32] Here's an example: you can write a book that tells a tale, while a television show or a movie expands it, offering new perspectives and deepening its lore. This approach is becoming increasingly popular, with entertainment

franchises branching out to other mediums, but this *modus operandi* is older than you may imagine. Entertainment producers have been using it for decades, and a notable instance comes from a 1999 movie: *The Matrix*.[33]

It was a revolutionary film in many departments. One was its transmedia narrative, which expanded its story through other mediums, including video games.[34] Additionally, the film's producer combined this approach with the internet to create an innovative marketing campaign. The movie's trailer asked, "What is the matrix?" This question enticed the filmgoers' curiosity, making them seek answers on the web to find more content about the production.[35] This *modus operandi* gave people the autonomy to seek more information about the story. It also heightened the project's social aspect as they discussed their opinions and theories on this mystery. Journalists like you can do something similar.

It's become common for journalists to report on the same story through different platforms. You can see this trend even in developing nations like Brazil. For example, *Folha de São Paulo* is a major newspaper in this country, and it has decided to use transmedia narratives to create more engaging content. It has accomplished this goal by using its strong presence on Facebook and Twitter, utilizing these platforms to share short videos summarizing a piece of news. These posts feature a link that users can click, taking them to the tabloid's website to read more details about the topic discussed.[36] Combining social media content with online articles brings three benefits.

Go where they are: Half of Americans get news from social media.[37] The approach mentioned above ensures your content will be where people are.

Time is money: Short social media videos give people content that informs them briefly. As a result, they're more compatible with the age of distractions than a long-form article.

More autonomy: The approach above allows users to choose how much they learn. They decide whether only to watch the video or dig deeper. And there's another way to give them freedom.

Breaking the fourth wall

You used to be a mere spectator. The only way to interact with television was by switching channels, but things have changed. You can now alter what you watch, literally. Audiences worldwide have gained a co-authorship role, using the internet to influence their favorite shows. They do this primarily through feedback shared online.[38] For example, TV producers can analyze how viewers reacted to the previous episodes and ask writers to change some story elements to meet people's demands. The result is better content for you to consume. Nowadays, journalists have been doing something similar. They've found ways to include the average citizen in the newsmaking process.[39]

New technologies have made it effortless for people to contact news agencies, leading to four consequences:

Agility: Reporters can know about an event more quickly. Witnesses can inform a news station about an occurrence as soon as it happens.

Multimedia content: Since people carry devices that allow them to capture and share media easily, an event's witness can record and send footage instantly to journalists.

Visceral experiences: This is the consequence of the point above. Reports that could usually only tell people about an event can now feature multimedia content showing it.

The fourth consequence requires a more detailed explanation.

The people's voice

News broadcasts can now feature polls more easily. Their premise is simple. The host asks for people's opinions, giving them a few options from which they can choose. After a few minutes, the results appear on air, and they can change the show's path.[41] An example of such a situation happened in 2013 during the Brazilian program *Brasil Urgente*. Its host was sharing news about ongoing protests in the country. He asked people whether they supported the movement. The majority voted "yes," angering him. He then proceeded to ask if rioting was acceptable. Again, most people answered "yes," leading him to change the show's course and start discussing the morality of rioting.[42]

The examples above show how the post-digital age has changed how you can make journalism. You can't separate yourself from your audience. You've intertwined. Therefore, you must learn to leverage digital technologies to connect with people and work with them. This approach will allow you to develop more engaging content. Of course, everybody wins, but in a world where the fight for attention gets fiercer daily, you must constantly look for new ways to give autonomy to news consumers.

Assuming control

You can't change history, but you can choose how to learn about it. This statement is the premise behind interactive documentaries.[43] Journalists have started experimenting with giving viewers agency on how their nonfiction films unfold. The premise is similar to multimedia reportages like *Snow Fall*. The project is a web page with several media types, including photography, audio, and video. However, the big difference is that an interactive documentary has its audiovisual element as the central piece, while other content types support it. The goal is to give you autonomy to choose how to navigate through the experience. An example is *Becoming Human*.[44]

It tells humanity's story. It accomplishes its goal through short videos you can watch in any order, but this production's interactive aspect comes from its supporting material. You can pause the video and open several tabs, as on a webpage. These show you many infographics and texts you can read, allowing you to personalize your experience. You decide how much time you wish to spend on it and how much information you want to receive.

You can identify a similarity between this project and all others featured in this chapter. They show how journalists invest heavily in interactivity to engage people in an age of distractions. But you can use digital platforms in other ways. You can also utilize them to conduct investigations that would've been nearly impossible two decades ago.

The will of the many

The internet has allowed people worldwide to connect and share ideas. You've certainly seen forums and websites where like-minded individuals discuss a topic. They can sometimes even make discoveries. A good example is the playable teaser of *Silent Hills*.[45] Its creator intended players to take a week to finish it. They, however, collaborated and solved its puzzles in a few hours.[46] You can do the same in journalism, connecting journalists to conduct investigations that would've been nearly impossible two decades ago, as the world discovered in 2015.

Panama Papers highlights collective intelligence's power in journalism. This case started with the leak of over 11 million documents from the Panamanian law firm Mossack Fonseca, with details of more than 214,000 companies. Many of these businesses were conducting illegal activities, like tax evasion, fraud, and drug trafficking.[47] A whistleblower decided to act and sent these files to a German journalist.[48] This action had enormous consequences. Three hundred seventy journalists worldwide collaborated to investigate the case.[49] Their discoveries had significant repercussions.

Governments worldwide tracked hidden money. From 2015 to 2021, this investigation recovered more than **$1.6 billion** in unpaid taxes, fines, and other penalties, strengthening the economies of several countries.[50] Norway, for example, received $34 million in two years, but this case's legacy goes beyond finances.[51] Parliament passed new laws to combat financial crimes and stop similar offenses from repeating.[52] This story teaches how the internet empowers journalists to change the world.

Panama Papers shows collective intelligence in journalism at its finest. Hundreds of journalists worldwide shared knowledge and findings with one goal: uncovering fiscal crimes. This undertaking would've been highly impractical in the days of traditional reporting, showing how the post-digital age has allowed reporters to combine their efforts and make groundbreaking discoveries. You're the beneficiary of this movement. It contributes to a fairer world and provides better content for you to enjoy. This prospect sounds excellent, but as this chapter ends, it's time to learn a big moral for everything you've learned.

The creatives shall inherit the (journalism) world

You may have noticed a pattern when reading this passage. All the new projects journalists have started developing to adapt to the post-digital age have originated from combinations. Reporters communicate to combine insights, as in the Panama Papers investigation. They also mix different media types in a single project, like an interactive documentary. There's a reason for this trend. The competition for people's attention gets fiercer by the second, so professionals like you must constantly find new ways to engage the audience. You must be creative to accomplish this goal. To unlock your creative potential, you must understand one concept.

The word "creativity" is misleading. Its first two syllables imply that you must create something new from scratch but ask yourself a question. Is there something truly original? No. Everything around you exists due to the combination of different concepts.[53] What's a smartphone, if not the convergence of a computer and a cellphone? What's a car if not a carriage with an engine? The same principle applies to media. Every movie, book, and song you've ever consumed

exists because the author gathered several inspiration sources to develop one project. Creativity isn't about creating. It's about finding new and exciting combinations.[54] This reasoning explains why many journalistic projects mix different media types. There's a lesson here.

You must expand your repertoire to increase your chances of creating exciting combinations that'll boost your reader's engagement and make your content more informative. The more information you store in your brain, the greater the number of combinations you can generate, making you more creative.[55] This situation highlights the need for digital journalists like yourself to be informed about various content and entertainment types. The following chapter will help you achieve this goal. You'll learn about a media type that remains primarily ignored in journalism but can yield significant results in capturing the audience's attention in an age of distractions. This book's title gives you a hint of what comes next.

3

HOW JOURNALISTS HAVE BEEN USING VIDEO GAMES

Photography can teach you a valuable lesson. How you frame a situation can drastically change your perception of it. Think of video games, for example. Many people have criticized this entertainment type for its effectiveness in engaging players. But you can see this scenario differently. Where they see a problem, you can find an opportunity. Journalists have done precisely this. They've decided to learn from gaming. They've started using game design techniques to hook readers, sometimes going as far as creating entire games. You'll learn in this chapter how these professionals have done so. This analysis starts with one word: gamification.

LIFE'S A GAME

All gamers share one similarity. Their favorite titles have helped improve the real world, and gamification is how. This term refers to using game design elements in non-game contexts to heighten the user's engagement.

These elements include:
- Points
- Leaderboards
- Rewards
- Progression systems
- and more[1]

Companies are building more and more applications, services, and content with this concept in mind. This explanation may have seemed abstract. So, read about a gamification example and a brief description of the psychology behind how it boosts engagement.

JUST DO IT

Athletes are competitive. Nike used this fact to its advantage through *Nike +*.[2] Launched in 2006 but discontinued in 2018; this app monitored your vital signs and location, giving you accurate numbers about your exercise routine.[3] This idea sounded exciting but had a flaw. There were many similar products available online. Some smartphones even came with one installed. So, the American shoe company knew it needed to innovate to incentivize people to use *Nike +* instead of its competitors. The solution? Gamification. This app featured many game concepts, and these turned using it into a significantly more engaging experience.

You could see a game design concept in this app when you opened it for the first time. It prompted you to set your fitness objectives. For example, how far would you like to run daily? This question was more than a mere suggestion. According to flow theory, people are likelier to stay engaged in an activity if there's a straightforward, attainable goal to pursue.[4] This reasoning explains why games give you missions to complete while splitting longer quests into smaller ones, so they seem more achievable and, therefore, more alluring.[5] But this was only one of this app's many game design concepts. It also used your performance and friends to motivate you to exercise.

Nike + also featured a scoring system. It gave you performance-based points and placed you and your friends on a leaderboard, determining who had achieved the best result. This feature may seem inconsequential, but it served two purposes. Firstly, your real-time score provided instant feedback on your performance, another element that flow theory claims to be critical for creating engagement.[6] Secondly, it rewarded you by displaying your name higher on the leaderboard. According to behaviorism, recompensing people for their efforts is critical for motivating them to continue performing a task.[7] These are only some examples of the game design concepts *Nike +* used, and these made it thrive.

Thirteen million people worldwide used the app in 2013.[8] This number jumped to 28 million one year later.[9] Although Nike discontinued support for this application in 2018, the American company continues using gamification in its workout platforms. Other industries have noticed successful stories such as this one. Journalists aiming to adapt to the age of distractions have been using game techniques to retain their audience's focus. They've been successful at that but had to face some growing pains.

EXPENSIVE MISTAKES

Google has birthed many technologies, but it has had several failures. Gamification is one of them. In 2011, the company released a new gamified system to motivate people to read the news through *Google News*.[10] The concept was simple. You opened articles on the platform and received virtual awards depending on the number of texts you read about a subject. You could earn bronze, silver, gold, and platinum medals. The idea was for users to display their mastery of specific topics to others. For example, you could brag about being a platinum politics reader.[11] That said, *Google News* had a performance-based reward system similar to *Nike +*. So you could assume it was also successful. It wasn't.

Its failure arose from misunderstanding how to motivate its audience. It's critical to understand that merely rewarding people is insufficient to engage them. You must offer them a prize they find valuable.[12] The previous sentence summarized why *Nike +* succeeded while *Google News* failed, despite both initiatives having similar concepts. Athletes are competitive and want to exercise. Placing them on a leaderboard with their friends based on their physical prowess is an excellent way to motivate them. News consumers, however, only want information. They are uninterested in obtaining virtual medals, hence Google's failure. Thankfully, other teams have learned from this mistake, achieving better results.

ASKING THE RIGHT QUESTIONS

Knowing your audience is critical. So, the global media group *Al Jazeera* surveyed its readers in 2017 to collect insights on them.[13] The team behind this project used gamification to motivate people to participate in the study. It featured a quiz to recap that year's most important stories. Players could click on a world map to visit 12 vir-

tual destinations, being presented with questions about that location's most meaningful events of 2017. If they got the answers right, they'd receive a stamp on a digital passport. The goal was to get as many as possible. Then, the survey would appear.[14]

Al Jazeera determined that the project had been successful. It ran from December 22nd to the 31st. Forty thousand people played the game, with 10,000 completing the survey, allowing this media group to collect valuable insights into its audience.[15] Users spent an average of four minutes and 25 seconds on the page.[16] Unfortunately, *Al Jazeera* didn't share its original goals for the project's audience but said it had been successful and would continue pursuing similar ventures.[17] Nowadays, this media group dedicates an entire section of its website to interactive experiences. But it's essential to highlight that the gamification of journalism can take many forms apart from quizzes, as the following project exemplifies.

PLAYING WITH THE NEWS

2008 was a year of change. This statement was true for various facets of society. Even the title of the most powerful man in the world changed hands as Barack Obama became President of the United States of America. As in most elections, two political spectrums divided the population. With this situation in mind, *American Public Media* created a tool to help elucidate any doubts people could have had over which candidate deserved their vote. It would've been easy for this company to create a monotonous platform that compared both politicians. But it went further. It made *Budget Hero*.[18]

This game discussed a critical subject: how the President would spend the country's budget. Can you do a better job? This game gave players control of the USA's spending. Its interface showed a graph bar that mimicked a city skyline, highlighting three build-

ings. Each represented the American economy's stability, size, and health. Players then received cards they could use. Each represented one decision that the President of the United States could make. For example, a participant could use the "Bring troops home" card to save US$ 210 billion.[19]

The game then estimated how these decisions would influence the American economy in 20 years. The three buildings mentioned above would change their height, creating an infographic informing players of their performance. After finishing their sessions, users could compare their results against the real budget plan that Barack Obama and John McCain proposed in their electoral campaigns.[20]

The result is an interactive experience that teaches people and engages them, being a more effective learning tool.[21] You could even pair a similar game with other media types, creating a transmedia project. But, considering these benefits, a thought may have crossed your mind. Why don't we see widespread adoption of video games in journalism? After all, their interactive nature makes them perfect for the age of distraction.

An Informational Problem

It's complicated. Using video games in journalism brings a lot of problems. Firstly, it's critical to remember that journalists aim to inform the masses. Even if games are skyrocketing in popularity, they still don't have the same reach as traditional media. Consequently, many people are unfamiliar with this medium's language. They don't have the same problem with text or audiovisual content, even if they consume it through digital devices. Therefore, creating a journalistic game that these individuals could play is challenging. The other issue is convincing them to try it.

Video games have become a significant part of pop culture. But a sizeable portion of society still sees them as toys. For example, movie critic Roger Ebert once said, "But for most gamers, video games represent a loss of those precious hours we have available to make ourselves more cultured, civilized, and empathetic."[22] Many others share this sentiment. Therefore, convincing these individuals to take journalistic video games seriously would be difficult. Moreover, there's yet another concern, perhaps the most significant: education, as pointed out by a noteworthy person.

Navid Khonsari is an Iranian video game developer. He wrote and directed the documentary game *1979 Revolution: Black Friday.*[23] It tells the story of his country's revolution, and you'll learn more about this title in chapter ten. It features an interview with Khonsari in which he addressed several topics, including why many journalists don't use gamification or make games. His answer was straightforward: information. He argued that press professionals today are unprepared to develop such a project due to their unfamiliarity with interactive media.[24] After all, informing through games requires specific knowledge, which most journalists lack. And there's yet another informational problem.

The storytelling techniques developed in gaming focus on fictional narratives. Telling a real-life story and reporting facts would require a different approach. This situation is problematic. The expertise needed to develop this project is still under construction. Therefore, a journalistic media group aiming to create a game would need to hire two groups of professionals: people with ample gaming experience and individuals with expertise in truthful storytelling. The goal would be to foster collaboration between both parties to make a game with journalistic integrity. Chapter 11 will teach you how to tackle this issue and the others mentioned here. But, before getting there, know there's another way games can improve journalism.

Play to win

Today's society is all about connections. These go beyond connecting people. You've learned that being creative is about uniquely combining different inspiration sources. Learning to do so is paramount in a world where the need to differentiate your content from others has never been higher. The gamification of journalism is a prime example. It combines game elements with journalistic content to create unique and engaging experiences. Still, there's another way in which you can use video games to your benefit.

Journalism in the post-digital age is about interactivity. Every project mentioned here contains interactive elements. Do you want an edge over your competition? Learn from people with ample experience dealing with interactivity. Video game developers have spent the last five decades developing techniques to solve the same problems journalists face, albeit in a different context. Read an example.

Virtual reality journalists are developing strategies to create VR documentaries that'll be as immersive as possible. Game makers have spent the last three decades crafting virtual environments and using them to tell stories. As a result, they can teach a lot to VR journalists about how to tell stories in digital worlds and to immerse their audiences in them. This example is one of many, as you'll learn in this book's next part.

DISCLAIMER: The quotes from video game developer interviews start appearing in the following chapters. Since each passage features dozens of excerpts from the same discussions, the author has decided only to add a note to the first instance an interview appears in each passage. You can use the note's number to check the full note

at the end of this manuscript. The goal was to create a better reading experience by avoiding overusing notes and citations. If you see a quote or a piece of information without a reference, assume it came from the chapter´s interview. You can read all interviews in Part IV.

PART II

LEVELING UP JOURNALISM

4

'DISHONORED 2' CAN HELP YOU BE A BETTER VIRTUAL REALITY JOURNALIST

It's a tale as old as time. It seems like it, at least. As soon as humans developed languages, they started telling stories. Back then, they gathered around campfires to share valuable lessons through narratives, as you've learned in this book's previous chapters. But things gradually changed. Storytellers became more sophisticated. They began crafting tales that discussed the human condition in myriad ways, using any available medium. They've used theater, books, cinema, and many other platforms throughout history.[1] Today, a new medium can forever change storytelling: virtual reality. And journalists have embraced it to tell real-life stories through immersive experiences.[2] You've learned about VR journalism in chapter two, but now it's time to dig deeper, starting with the two different approaches you can use.

Live-Action VR Journalism

North Korea is the world's most secretive country. And because people love mysteries, individuals worldwide want to know more about this nation. The North Korean government is happy to supply this demand, as it allows tourists and journalists to visit selected areas of its capital, Pyongyang. With this fact in mind, *CNN* sent a documentary crew to the city in 2018 to shoot a virtual reality documentary: *An Ordinary Day in North Korea*.[3] It gives you a glimpse of life in this secluded land, showing you its most iconic locations. This tour is a live-action production, with footage shot "out in the wild." But another approach is possible.

Computer-Generated VR Journalism

The following image (figure 1) is more than a white room. It comes from *6×9: A Virtual Experience of Solitary Confinement*.[4] It's a VR experience that puts you inside a solitary cell. It differs significantly from *One Ordinary Day in North Korea* because it puts you in a computer-generated 3D environment. In it, you can look around and interact with objects that share insights into inmates' lives. This project is part of a transmedia narrative that *The Guardian* created in 2016 to denounce the psychological harm isolation inflicts on prisoners. It consists of articles, audio testimonials, and a VR video. All of them work in tandem to tell this story.[5] With a novel idea and a solid execution, the final product received praise from users while also getting attention from award committees.
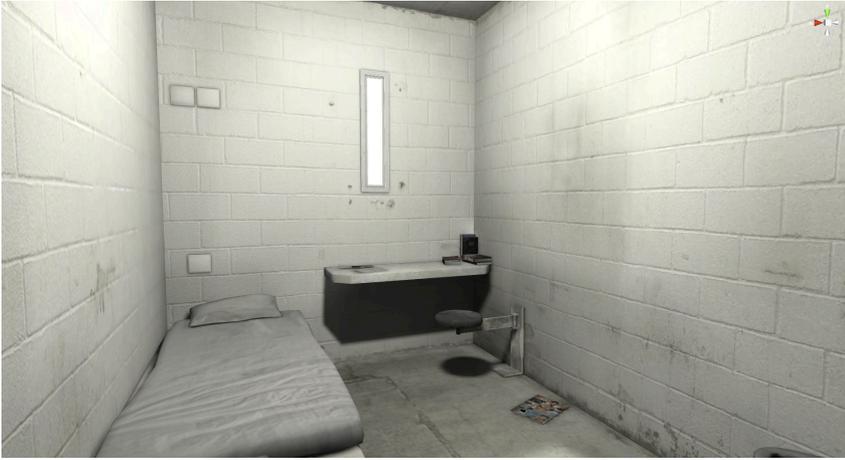
Figure 1. Your virtual solitary cell is an accurate recreation of a real one. (Credit: The Guardian)

In the year of its release, *6×9: A Virtual Experience of Solitary Confinement* won the Online Journalism Awards in "Excellence and Innovation in Visual Digital Storytelling." Judges praised many aspects of the experience, including its journalistic merits, extensive research, and novel use of VR journalism.[6] One factor that helped *The Guardian* shatter the barrier between reality and virtual reality was the objects with which people could interact in the solitary cell. These allowed users to have more agency in the 3D space, helping to make them feel present in it. Projects like this validate VR journalism and show the enormous journalistic potential of recreating real locations using computer-generated graphics. It also gives many opportunities to ambitious journalists.

PARADISE LOST

Some places are inaccessible or have been lost to time. A journalism network can use computer-generated graphics to recreate these locations in virtual reality, allowing people to explore locales they'd never otherwise. For example, imagine creating a multimedia reportage

about Ancient Rome featuring a VR experience that lets users walk through the city's streets. This approach would be excellent for engaging the audience through an unparalleled experience while informing them. This prospect should excite you. If you're a VR journalist, developing a similar project should be in your mind. It'd be a great way to hook your audience in an age of distractions. But nothing is perfect. This endeavor would bring many challenges, especially concerning ethics. You must stay factual.

During an interview with the *Smithsonian Magazine*, the archaeologist Simon Young said: "Some game developer in Silicon Valley who has no idea thinks, 'Oh, a column would look great there.' The real danger is that VR is such a powerful medium. If someone visits the Coliseum, they walk away believing this was what it was like."[7] In the same article, Rebecca Carlsson mentioned that "this highlights an important point about using VR in heritage spaces. As well as being immersive, it must be accurate and faithful to reality."[8] Creating immersive experiences faithful to reality is challenging but possible. The video game industry has proven that, and plenty of examples exist. You're about to see two.

WHEN WORLDS COLLIDE: REAL LOCATIONS IN VIDEO GAMES

Professionals in this industry are familiar with using computer-generated graphics to recreate real locations in a virtual world. Large studios have already implemented such projects in blockbuster titles, like *Call of Duty 4: Modern Warfare*.[9] In the mission "all ghillied up," you need to infiltrate Pripyat, where the Chernobyl nuclear incident happened. The goal: eliminate a terrorist. At this level, you can explore an accurate recreation of various famous locations in the

city, as the following image shows (figure 2). The developers received praise for their work. It combined a dreadful ambiance and critical techniques you'll learn about later. Multiple publications claim this segment is one of the best in gaming history.

Figure 2. In this mission, you can explore different paths in Pripyat. (Credit: Activision)

Critics shared their praises online when the game hit store shelves in 2007. For example, the publication *Kotaku* regarded it as one of the best levels in gaming history.[10] *PC Gamer* said it "demonstrates the real craft of a linear story-driven first-person shooter."[11] But the favorable reception went beyond critics. Players also ranked this mission highly in their all-time best video game moments lists. In 2019, *LADBibble* created a poll to find the most memorable *Call of Duty* mission. "All ghillied up" won, receiving 67% of the 6,180 votes.[12] Such appraisal shows how much people enjoyed this experience. But this content type goes beyond war titles.

Titanic: Honor and Glory[13] puts you inside the world's most famous ship, as the following image shows (figure 3). In it, you can explore the entire vessel in what the developers promise to be its most accurate recreation.[14] And they're doing what they can to stay true to their word. For example, they've recruited Bill Sauder, a consultant for the movie *Titanic*, and are conducting extensive research on the topic.[15] The release date remains unannounced as of this writing, but a demo is available. This project shows the enormous potential for the recreation of real-life environments in interactive digital media. You can do something similar in VR journalism, and video games can help you make your project as immersive as possible.

Figure 3. This game features detailed environments and objects. (Credit: *Titanic: Honor and Glory* development team)

Immersion in video games

Recap. You've learned in chapter two that immersion is VR's selling point. This term refers to a project's ability to get you so engrossed that you forget about your surroundings. There are many levels of immersion. Some media pieces engage you only a little, and you

quickly get distracted. Others completely entrance you, making you feel inside the story, which is what you wish to achieve. You want your VR documentary to be as immersive as possible to retain people's attention. Games can teach you how.

"Immersive" is a term often used to praise titles in the gaming industry. Even in the days when 2D graphics were prevalent, developers had already started exploring how to create games that could immerse players in their worlds. And, as technology became more powerful, designers began to seek more than visual fidelity. They also started to create intricate and detailed universes that were as immersive as possible. For example, look at the difference between *Wolfenstein 3D*[16] and *Wolfenstein 2: The New Colossus*[17] (figure 4).
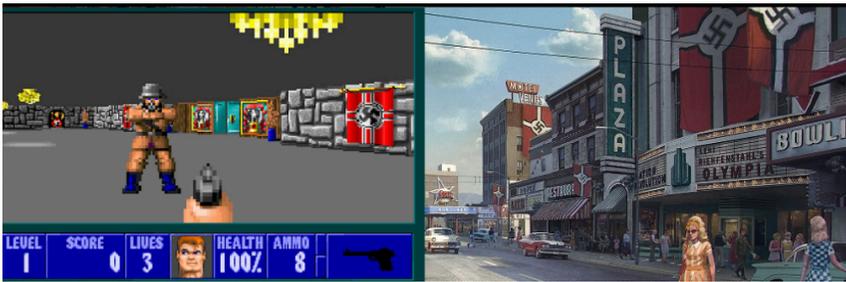
Figure 4. Video games have evolved from empty spaces to living universes. (Credit: ZeniMax Media)

After decades of refinement, game makers have developed an advanced ruleset for fostering immersion in virtual 3D spaces. So, suppose you're a journalist looking to use computer-generated graphics to create a VR documentary. In this case, video games can teach you techniques to make it as immersive and engaging as possible. In this regard, there's a game that's a masterclass.

Creating an immersive world in 'dishonored 2'

Arkane Studios is renowned in the video game industry for crafting strong narratives featuring detailed and immersive universes. In 2016, they honored their reputation with *Dishonored 2*.[18] Fifteen years after the ending of the franchise's first installment, the Kingdom of Serkonos is thriving under the rule of Emily Caldwin. But, a mysterious figure has started assassinating her political opposition, leading people to believe she's responsible for these deaths. Dethroned, she must escape incarceration, discover the murderer's identity, and cleanse her name. After breaking free, she travels to the industrial city of Karnaca (figure 5), looking for answers.

Figure 5. *Dishonored 2* offers large environments where you can approach a mission in multiple ways. (Credit: ZeniMax Media)

Dishonored 2 received praise from players and critics, getting nominations for various awards and winning "Game of the Year" and "Best Action/Adventure Game" in PC Gamer's Best of 2016.[19] Immersion was one aspect that received universal acclaim. With this in mind, you'll learn the design techniques used to immerse players in Karnaca in the following pages.

You can use them to create VR journalism experiences that'll be as immersive as possible. You'll learn how in the following pages. They share the rules to foster immersion that the psychologist Jamie Madigan established in his book *Getting Gamers,*[20] explaining how this game adheres to them. For more insights, you'll also read quotes from an exclusive interview with a Level Artist who worked on *Dishonored 2:* David Di Giacomo.[21]

Rule #1: Create multiple channels of sensory information

Think of novels. When authors describe a location, they share many details beyond its appearance. They explain how it feels and sounds. Sometimes, they add smells. They can also go as far as exploring how it moves the protagonist emotionally. They aim to make readers understand what being in that place feels like, making it more believable. You should do the same in VR journalism. According to Jamie Madigan, immersion can only occur if the audience has a complete sensory understanding of the environment.[22] But accomplishing this feat is challenging. Virtual reality projects can't convey certain sensations, like how a surface feels or a place smells. But games can help you. As *Dishonored 2* teaches, sound design can do wonders.

One aspect that stands out in this title is its attention to audio. When walking through the streets of Karnaca, its environments bombard you with auditory details. These give you sensory information that video games usually can't.

Examples of sounds replacing other sensory inputs:

- Each material emits distinct noises when you walk on it, communicating how it feels.
- The sound of flying insects evokes foul odors.
- Wood cracking conveys excessive weight and fragility.

There are many layers to the audio of *Dishonored 2* that allow it to transmit sensory information beyond what you see, making Karnaca more immersive. You can do the same in VR journalism.

You can heavily invest in how the audio layers of the 3D space convey sensory information that's otherwise unattainable in this medium. For instance, a chilling breeze and shades of blue communicate cold weather. Likewise, if a loud noise plays when a metal door slowly opens, this sound conveys sturdiness and weight. These examples illustrate how audio can fill the sensory gap you'd otherwise leave open. The result is a more immersive VR documentary. But keep one thing in mind: sound is only the beginning.

Rule #2: Create cognitively demanding environments

Maximum immersion is all about giving the illusion of presence in a virtual location. To accomplish this goal, video game designers must ensure that players become so engaged with their title's environments that they forget real life.[23] To do this, developers fill these 3D locations with visual elements that keep people's minds busy. If their brains constantly absorb environmental details, they're more likely to stay focused, preventing them from drifting out of the experience. So, for example, a game can feature a street with many civilians to observe. It could also feature graffiti or posters that give insights into life in the society it's portraying. As it turns out, this is a good description of the levels in *Dishonored 2*, as pictured (figure 6).

Figure 6. The streets of Karnaca are full of details that add to the game´s lore. (Credit: ZeniMax Media)

All corners in Karnaca are brimming with detail. Even the arrangement of objects gives you insights into life in this society and its story. David Di Giacomo said, "These details help the player immerse himself in the game's world. All of these elements help with storytelling." But, it's essential to ensure that all these items reinforce the game's themes and narrative. "If objects necessary to understand the story are drowned by an overabundance of elements around them, then it's a mistake," he added. So, naturally, players stay busy absorbing these intricacies, keeping their minds engaged in the game, and boosting their immersion. You can translate this principle to VR journalism.

Suppose you're making a VR documentary about a politically unstable place. In this case, you can study the graffiti, propaganda posters, and other means of protest citizens use. Then, put them in your project. These details create a cognitively demanding experience, boosting immersion. And you can still go further.

You can also use sound. For instance, you may hire actors to chat about information pertinent to your story, allowing users to eavesdrop on them and get some exposition. If doing so is impossible, you can achieve the same effect with radios broadcasting a news report. You can even make them interactive.

Rule #3: Allow players to interact with the world

If you're at a party, but everyone ignores you, are you part of it? No. The same goes for video game players. For them to feel immersed in a virtual location, it needs to acknowledge their presence.[24] Some games make the environment change based on the player's actions. But, this approach can get expensive, so learn an alternative.

Game designers often populate their projects with interactive items for people to use. These interactions validate the users' existence in that world, heightening their feeling of presence. *Dishonored 2* relies heavily on this principle.

Dishonored 2 features many ways to interact with its world. Some serve tactical purposes to help in combat.

Examples of combat-driven interactions:
- Grabbing and throwing objects.
- Setting off alarm clocks
- Eating foods to restore health.

However, others exist for narrative reasons.

Examples of narrative-driven interactions:
- Talking to people on the street.
- Collecting books.
- Reading diaries to deepen the lore.

These interactions validate the player's presence in the game's world, facilitating immersion. But think of quality instead of quantity. Unfortunately, it's easy to get this concept wrong for one reason.

Rule #4: Items in the game world must have consistent behavior

Game designers must ensure that how objects react to inputs remains consistent.[25] Failing to do so destroys immersion. To understand why, imagine the following scenario. Every time players interact with an alarm clock, it rings but occasionally plays a random noise. This sudden deviation from an established pattern may startle people, pulling them out of the illusion the game was trying to build. As such, Di Giacomo explained that *Dishonored 2* always avoided these situations.

Dishonored 2 uses rules to ensure consistent behavior from its items. For example, when players see a letter, they can pick it up and read it. When they do that for the first time, they subconsciously create a rule: "If I collect a document, I can read it." The same principle applies to each object in the game. Once people interact with it for the first time and it works in a certain way, they expect it to behave the same way throughout. So, whether you're working on a video game or a VR journalism project, you should populate your environments with as many interactive objects as possible. But, you must ensure their behavior is consistent with the rules your audience establishes in its mind. Inconsistent interactions can startle players, breaking their immersion.

Rule #5: Avoid visual cues

Few things are more frustrating than being lost in an unfamiliar place. Developers are aware of that. So, they use their games' user interface (UI) to help players navigate the virtual world.

Examples of navigational information shared through UI:
- Current objective.
- Where it is.
- How to get to it.

Developers have good intentions when including these features in their games. But it's essential to implement them carefully. They can backfire. According to Madigan, overusing them can distract players, making the experience less immersive.[26] This situation is a dilemma. Too much information is immersion-breaking, but too little leaves players lacking vital data.

Considering this issue, Arkane needed to find a way to inform players without compromising the game's immersion. Their solution was to turn a problem into an opportunity. *Dishonored 2* features visual cues. But they're stylized in a way that makes sense within the game's art direction, reinforcing the franchise's visual identity. This way, these elements never feel foreign or break the immersion. The game also lets players turn off the user interface altogether. They can also customize it to fade after a set amount of idle time. After this brief explanation, you can learn how *Dishonored 2* and its UI can help solve a problem you may face if you're new to VR journalism.

As a reporter, you must inform people. So, you may feel the urge to inundate the screen with texts. Resist this temptation. Anything unnatural will pull people out of the experience, ruining their immersion. You can use other methods instead.

Alternative methods you can use to inform people in VR:
- A radio broadcast.
- Graffiti on walls.
- Documents that users can pick up and read.
- And many more.

Only use intrusive overlay texts if you've exhausted all other options. Even then, it would help if you stylized them to suit the experience's visual identity. It's also advisable to allow users to customize how many on-screen texts they wish to see.

Rule #6: Invest in an exciting story

A game designer can create a meticulously crafted virtual world. But, this effort will be fruitless if players have no reason to partake in it. An effective way to give them one is through storytelling. As you learned in chapter two, people's brains crave stories. So, placing gamers in an exciting narrative motivates them to stay engaged in the game.[27] But writing a compelling story is only half of the challenge. The other 50% consists of knowing how to use this medium's particularities to tell it best. And, as it turns out, developers can use narratives to drive engagement through behaviorism. You've learned about it in chapter three, but now it's time to see how to combine it with storytelling.

Behaviorism argues that you can motivate people to stay engaged in an activity by rewarding them.[28] Most games use this principle by gifting players new weapons, equipment, or abilities upon completing a task. When they receive these prizes, dopamine floods their brains, giving them pleasure and stimulating them to play more. Consequently, they stay engaged in this loop.[29] *Dishonored 2* combines this principle with storytelling, incentivizing players to explore the streets of Karnaca.

Think back to the game's premise. You want to find the killer who assassinated your political opposition. In short, this story is a mystery for you to solve. You can search Karnaca for clues in recorded messages, diaries, books, and other items scattered around the city. Each of them deepens your understanding of the lore. But, above all, they

work as rewards if you're engaged in the narrative. When you discover a new bit of information, you get a dose of dopamine, making you feel more compelled to keep exploring to find more intel. After all, the next big clue might be right around the corner. This loop keeps your brain busy, thus bolstering engagement and immersion. And it can lead to another consequence.

When done right, the city becomes a character in itself, as Di Giacomo said. "If the world is an important character in some people's eyes, it's thanks to the writers and level designers. They deepen it through all the plot twists, side quests, and visual anecdotes they implement," he also added the following:

> *"It's a question of sensitivity. The Dishonored universe was a visually distinct world that offered something new, original, and unexpected when the game came out. But it's more than that. To me, the characters are also very charismatic. The weapons are remarkable, and the objects have a distinctive design. The powers also enable people to approach and see the game differently." – David Di Giacomo*

Remember these words. They can be helpful in your VR documentary. When designing it, you must determine how to tell your story to users. Instead of having voiceovers sharing exposition, you can spread tapes in the environment. People will need to explore it and find them if they wish to advance the narrative. Using this approach, you can create something akin to what *Dishonored 2* did. You can develop an experience wherein each story fragment is a reward that'll motivate people to find the next, keeping them engaged in your project. Perhaps you'll create a world so rich that people will perceive it as a character.

Creating a place so engaging that people see it as a living creature may seem an exaggeration. But, it's the mere culmination of the concepts explained here. Although you learned these principles in the context of a video game, they apply to any immersive medium, including virtual reality journalism. But there are other principles you can learn to understand how to create immersive experiences. Immersion is far from being exclusive to video games and virtual reality. The most famous example comes from neither medium. Learn how *Dishonored 2* uses principles from an unlikely but familiar inspiration source.

The most famous example of immersion

There's a place on Earth where magic blends with reality. As people walk through its main gate, they leave worries and problems behind. They start feeling an exuberant glee, for the mysticality of the universe around them is enchanting. You probably know this place. Odds are you've been there: Disneyland. As guests walk through it, they get lost in it. Not literally, of course. But they feel like part of its world. Yes, people get immersed in it. Considering the success of this theme park, it's a stellar example of immersion, and you can learn a lot from its design principles.

Creating immersion is an art that requires systematic planning. With this in mind, Disney designers and engineers created "Mickey's Ten Commandments." These are rules that the staff uses to design rides for its theme parks.[30] These principles have plenty to teach about creating immersive experiences in video games and other platforms that aim for spatial awareness. As the game designer Scott Rogers wrote, "Everything I learned about level design, I learned at Disneyland."[31] Therefore, the following pages analyze these rules and how Arkane Studios used them in *Dishonored 2*.

Rule #1 – Organize the flow of people and ideas

Good communicators introduce a topic before diving deeper. They also structure their arguments coherently, enticing people to stay tuned and learn more. A poorly planned article, speech, or book confuses the audience, leading to disinterest. This principle applies to journalists, copywriters, public speakers, and other communications professionals. This group includes game designers. They can't merely drop players in an alien world. Instead, they must carefully plan how to introduce gamers to it, flattening their learning curve to avoid overwhelming them.[32] You can see this idea in *Dishonored 2*. Before taking players to Karnaca, it starts elsewhere.

The story's first chapter happens in Dunwall, where the franchise's previous installment occurs. As Di Giacomo said, "Starting the *Dishonored 2* adventure in Dunwall, in a familiar and faithful environment, will ensure players that they're in the same world."[37] He also explained that this approach gives gamers a sense of familiarity before exploring uncharted territories to experience new lore and themes. For example, even when players arrive in Karnaca, they first walk through a calm port that resembles the real world. Only when they start going deeper into the city do they progressively begin witnessing this universe's supernatural elements, as the following image shows (figure 7).

Figure 7. This game has many pathways to search for more intel and items. (Credit: ZeniMax Media)

This image comes from the game's fifth mission, where you infiltrate Karnaca's Royal Conservatory. You must sneak past a group of witches who thrive in the occult, using magic to fight you. If you've never played *Dishonored 2*, this concept may seem bizarre, but it doesn't come across this way to players. The game gradually introduces them to new ideas throughout the story as they go further into the city. Consequently, they got accustomed to this universe's otherworldliness. They reached this location with a solid understanding of how Karnaca works. This approach made them react with curiosity, not confusion. In VR journalism, you should follow this same *modus operandi*.

Human culture differs worldwide. Imagine you're producing a VR documentary about a Middle Eastern village with customs that diverge drastically from your Western audience. Simply dropping users in this environment could confuse them, potentially driving them away. Instead, it'd be best to introduce them gradually to this place. An excellent way to start would be to focus on its similarities

with your users. After all, no matter the country, people always enjoy things like food and music. Focusing on these two aspects could be a good starting point before sending your audience deeper into the unknown. And in addition to keeping your users from getting lost mentally, you should ensure this never happens physically. The following rule teaches you how.

Rule #2 – Create a weenie

Getting lost seldom happens nowadays. But, before the age of Google Maps, using a reference point was an excellent way to reach destinations. "To get there, I must follow that tall building." You did that to ease your life. After all, everybody hates taking a wrong turn on a busy day. And, as it turns out, Disney agrees. Disneyland designers always use towering structures to guide guests from afar visually. The goal is to minimize the chance of people not finding their way to a ride, which would frustrate them, breaking their immersion.[33] The company calls these landmarks "weenies."[34] They've become a vital asset in the toolkit of video game artists that aim to create immersive worlds, including David Di Giacomo with *Dishonored 2*.

When exploring Karnaca, gamers can walk through different buildings, streets, and pathways. To ensure they can explore these areas without getting lost or straying too far from their objective, the artists at Arkane Studios employed various methods. Di Giacomo explained, "I have to guide players to the possible path(s). Classic calling elements can be landmarks, iconic elements, or lighting sources to invite them." This last item is a proven way to guide users without using visually intrusive methods. See the following image for an example (figure 8). Light draws your attention to an enemy and a pathway. As a result, players never get lost. Doing the same in VR journalism is possible but challenging.

Figure 8. *Dishonored 2* relies heavily on light sources to highlight interest points. (Credit: ZeniMax Media)

You must stay faithful to the original environment. That means your hands are tied but not as tight as you may imagine. Adding a visual landmark where none exists would be journalistically unethical. However, you still have lighting in your toolkit. 3D graphics engines allow you to tweak it. Use that to your advantage to adjust how light propagates in the environment. If you do it right, you can point users to the correct way forward or highlight points of interest. As a result, you reduce their likelihood of getting lost and frustrated.

Rule #3 – Avoid contradiction

Remove anything that distracts people from the intended experience.[35] In this regard, large projects face a problem. They feature many objects, buildings, artworks, and more. In short, they have many small elements, and a designer must ensure they're all visually cohesive so that none appears out of place. If any of them do without a justification, people will find it strange, pulling them out of their immersion. So, to create an immersive experience, ensure your world remains visually consistent, as *Dishonored 2* shows.

To understand how this title uses this concept, look at the level for which Di Giacomo was responsible: The Clockwork Mansion, shown in the following picture (figure 9). In the game's fourth mission, your investigation leads you to the home of Kirin Jindosh, a prolific inventor. Inside his estate, you must find and confront him. But it's easier said than done. In addition to the human and mechanical security guards patrolling the area, navigating through it resembles solving a puzzle. Every central room in the mansion has a lever that triggers a series of mechanisms, shifting the environment's layout. You must find the right combination to reach Jindosh. Although players praised this level's creativity, designing it was challenging.

Figure 9. The Clockwork Mansion features enemies and environments distinct from the other areas in the game. (Credit: ZeniMax Media)

The Clockwork Mansion has a different premise from any other environment in *Dishonored 2*. So, the artists at Arkane Studios faced the challenge of designing a location with a visual identity distinct from those that preceded it. But players couldn't perceive it as being out of place, which would break their immersion. According to Di Giacomo, there was one solution.

*"The Dishonored games have a strong graphical identity. Most objects and decorations follow a specific artistic direction that's adhered to from the conceptual phase to its final design. The Level Artist creates the set elements and sends them along with **documentation** to the concept or environment team."– David Di Giacomo*

"Documentation" is the keyword. All environments in the game are a collection of hundreds of smaller objects. By documenting each, the artists can ensure that every element adheres to the project's visual identity. "These elements are then taken over by a team that ensures visual continuity throughout the experience. Although specific to this level, the details of the Clockwork Mansion are no exception to this rule," Di Giacomo said. Once the team documents every aspect, it becomes part of an environment in the game if it passes inspection. If done correctly, this process facilitates the developer's efforts to create a cohesive and immersive world. But this is only a tiny fragment of the bigger picture.

The path to immersion

Having the right ingredients is useless without following the proper recipe. Likewise, learning the theory behind creating immersive environments is fruitless if you're oblivious to the process that results in the final product. With that in mind, Di Giacomo shared some of the inner workings of Arkane Studios so you can understand how its developers approach designing their worlds. "At Arkane Lyon, on *Dishonored 2*, we worked as a mini team dedicated to the specific level in question, which had a Level Designer and a Level Artist," he said. However, before moving forward, it's vital to understand the distinction between these roles. Di Giacomo clarified the subject.

"The Level Designer gives the gameplay intentions for the level concerning the world's constraints and how it fits into the game. Then, the Level Artist has to interpret these intentions at the visual level so that everything looks transparent, fun, and interesting to the player while respecting the artistic direction." – David Di Giacomo

These two professionals collaborate to ensure they share the same vision. As a result, the virtual world's visuals integrate well with the intended pathways and interactions. "We move forward together, through meetings, and by increments, we make the level evolve through time," he said. With this process, the team builds the level and gets feedback.

"At the same time, quality assurance and testers monitor this process. We adapt and adjust if we discover that our ideas are misunderstood or don't work well," Di Giacomo said. Two aspects are continuously evolving in this journey: pathways and their weenies. "Testing sessions are in parallel with our work, which helps us. They can show us whether a passage is visible enough or too visible. We react so that everything proposed is homogeneous," Di Giacomo explained. So, when testing, look for anything distracting people from the intended experience and keep iterating based on feedback. "It's like a drawing or a painting. You rarely get the desired result on the first draft," he concluded.

FINAL THOUGHTS

Video game designers are no strangers to bringing remote locations back to life. However, considering journalism's pursuit to develop transmedia projects such as *6×9: A Virtual Experience of Solitary Confinement* and its investment in immersive virtual reality experiences, the necessity to utilize better this medium's most potent differentiator arises. This scenario holds especially true in projects where

capturing live footage is impossible. In this regard, video games like *Dishonored 2* have plenty to teach. But it's critical to remember that the lessons learned here are a starting point. Rules are meant to be broken, after all. So, adapt what you've learned here to your project's needs to unlock its full immersive potential.

5

'BIOSHOCK' CAN MAKE YOUR DOCUMENTARY BETTER

Everything old is new again. Recent technologies have enabled journalists to create projects that would've been unimaginable two decades ago. But the age of distractions has also forced these professionals to reevaluate how they approach traditional media to make it more engaging for current audiences. Documentaries exemplify this trend. Many people dreaded them. Now, they're amongst the most popular films. What has changed? As explained in chapter one, journalists started using a more dramatic approach, relying heavily on storytelling to hook viewers. They turned their reports into stories.[1] But there's one piece of storytelling knowledge you could avoid if you're trying to do the same.

THE START ISN'T ALWAYS THE BEGINNING

A story usually consists of three parts.

Act I – Introduction: it establishes the world's context, its characters, and their motivations. It ends when the story's central conflict starts.

Act II – Development: the protagonist is working to resolve the situation and fighting increasing odds.

Act III – Conclusion: the conflict's climax and resolution.[2]

This approach to storytelling has existed since Aristotle established it millennia ago. Most narratives you see today follow this formula regardless of the medium.[3] You see it even in journalism, albeit with some adaptations.

Journalism aims to inform effectively. To reach this goal, journalists often rely on the inverted pyramid structure. It addresses how a journalist should write a news report as a variant of the abovementioned three acts. It's as follows:

Part I: it introduces people to the story's most critical aspects.

Part II: it shares a more detailed account of these events.

Part III: it addresses the story's less critical details and shares possible future developments.[4]

Given your familiarity with these structures, you may imagine that the best approach to turning your documentary into a story would be to use either. But you can avoid this common sense.

You can use an *in medias res* structure instead. It means "in the middle of things" in Latin and consists of starting a story amid an ongoing conflict, skipping its first act and the details it usually shares. The author then shares them gradually throughout the narrative via dialogue or flashbacks. In films, it's common to see this structure in *noir*. A detective investigates a crime and discovers a larger scheme that

started before the movie had begun. The goal is to ensure the protagonist and the audience are "on the same page," unveiling a mystery together.[5] But there's another reason an author would choose to follow this approach, and it's critical to documentaries that aim to succeed in the age of distractions.

In medias res allows an author to start a story in the middle of the action, getting to its "hook" immediately.[6] Since journalists like you need to engage audiences with a shrinking tolerance to boredom, consider using this structure type in a documentary. It could even pave the way for you to build a transmedia narrative.

You could use another medium to share the information you omitted by skipping your story's introduction. That way, you supplement the main narrative arc and provide people with your story's background info without breaking its flow with expository dialogue or flashbacks. But, despite these positive elements, it's essential to read a disclaimer about this topic.

'In medias res' in journalism

This narrative structure is only suitable for some journalism types. You can use it where it's appropriate to engage people through storytelling. A perfect example is events that have been concluded and thoroughly researched. You can share them through lengthy narratives, like long-form articles and documentaries. But you should avoid using *in medias res* with the news. This structure would contradict the goal of news reporting by hiding crucial information, only to deliver it later. Besides, this technique is unnecessary in the news since each report is brief, lasting only a few minutes, if less, so there's no need to use elaborate narratives to engage people. Now, after this explanation, you may wish to use *in medias res* in a documentary. Be careful. It can backfire.

Too much of a good thing

Starting your story with a major dramatic event will hook people, but it'll have another consequence. Viewers will expect the drama to only grow from there, making it more difficult for you to meet their expectations. So, plot your narrative to offer growing tension and progressively increase the main character's challenges. That said, it's advisable to only use *in medias res* if you're confident that your story offers people strong incentives to stay hooked after the first five minutes.[7] And it's essential to keep this number in mind lest you make another mistake when using this technique. It can be confusing.

People need fundamental contextualization to understand what they're watching, even if you start a story in its middle. This context includes who the main character is and the plot's central conflict. But, if you give the audience too much background, you'll write a traditional three-act structure instead. Finding the balance that makes *in medias res* work is a daunting task that requires a lot of feedback, as there's a fine line between enticing your audience's curiosity and alienating it. But thankfully, there's extensive literature on overcoming this problem. For example, video game developers can teach you plenty about using this narrative structure, as they use it often in their projects.

'In medias res' in gaming

Video games are about action. Players will drop the controller if it takes too long for them to be in the middle of an exciting conflict. To solve this problem, developers often use *in medias res*.[8] They skip the story's introduction and immediately put gamers into a plight. Examples of titles using this narrative structure are plentiful, becoming a cliché in the industry. But it can still be highly effective.

One development team used this technique to build an experience that gamers and critics hailed as a shining example of video games' potential as a storytelling platform. If you want to use *in medias res* in your documentaries, you can learn a lot from it.

Drowning in utopian dreams

BioShock[9] came out in 2007. It tells the story of an underwater utopia called Rapture, which fell after a civil war, and uses a first-person perspective to put you in the shoes of a man named Jack. The game opens in 1960, with you inside an airplane cruising the Atlantic Ocean. Your heart races in despair as your aircraft descends from the sky. Defying the odds, you survive the impact. You look for a way to escape the freezing water as the fiery wreckage surrounds you. Finally, a lighthouse appears in your sight. It invites you inside. As you enter it, your footsteps echo through the room, and its robust metal door slams shut behind you. Lights go up. You see a banner. "No gods or kings, only man," it reads. There's only one path to follow: downstairs.

You descend into this path. It leads you to a bathysphere. Its door closes, trapping you inside it, and it goes into the water before you can even attempt to escape. A screen appears in front of you, blocking the window. It displays a man's image. He speaks to you:

> *"I am Andrew Ryan, and I'm here to ask you a question. Is a man not entitled to the sweat of his brow? 'No!' says the man in Washington, 'It belongs to the poor.' 'No!' says the man in the Vatican, 'It belongs to God.' 'No!' says the man in Moscow, 'It belongs to everyone.' I rejected those answers; instead, I chose something different. I chose the impossible. I chose Rapture." – **Andrew Ryan**

The screen retracts, unblocking the window, revealing an underwater metropolis. Ryan continues his speech. "A city where the artist wouldn't fear the censor. Where the scientist wouldn't be bound by petty morality. Where the great wouldn't be constrained by the small!" You approach the city's entrance as Ryan concludes his monologue: "And with the sweat of your brow, Rapture can become your city as well."

As you enter the city, all you see is darkness until a man approaches your bathysphere. But before he can reach you, a woman with superhuman strength and agility uses her claws to slaughter him. A few seconds later, a man contacts you through a radio. His name is Atlas, and he needs your help to save his wife and child. As you step outside your bathysphere, rubble and darkness surround you. The utopian dream has died.

The previous paragraphs described the first five minutes of *BioShock*. During your journey to save Atlas' family and escape from Rapture, you explore what remains of the utopia. But escaping will be more complicated than surviving a plane crash. Most Rapture citizens have become mutated creatures with superhuman strength and agility. They'll attack you on sight. Armed with a wrench, you must listen carefully to Atlas' instructions to survive, rescue his family, and escape this underwater nightmare. But as you go through the city and see the ruins of a once-thriving society, you'll probably wonder what led to its downfall.

The story of this thriving utopia turning into a decaying carcass shows how the objectivist ideology of Andrew Ryan backfired. His libertarian society allowed an opposition party to grow and try to dethrone him. Trying to keep the rule of Rapture, Ryan betrayed his ideals. He became a dictator. This narrative is complex, replete with details and interesting characters, but good fiction goes beyond

a clever plot. You also need superb storytelling. In this department, *BioShock* thrived, starting with an *in medias res* opening, as it puts you in the middle of a civil war without telling you how it began. The goal was to motivate players to continue playing to get answers. It worked. Critics and players consider it one of the best introductions of all time, with the game receiving a 96/100 score in the review aggregator *Metacritic*.[10]

The following pages share the thoughts of Ken Levine.[11] He was the creative director and lead writer of *BioShock*. Levine gave an exclusive interview where he explained the techniques he used to create an effective *in medias res* opening for his game so that you can apply the same lessons to your documentary. But one statement from him may surprise you. During his interview, he recalled what he regards as "one of the most depressing experiences" of his life.

He used these harsh words to describe the day he and his team invited a group of players to test *BioShock*. The procedure was simple: people visited the studio, played the game, and shared opinions. Levine believed the test would go well. But based on the quote from the previous paragraph, you can imagine how his experiment went.

Learning from (almost) failure

"It went horribly. They (the testers) didn't get it. Peopled hated it," Levine said. According to him, despite the game's serious narrative surrounding many mature themes, its story failed to engage players. Consequently, they never took it seriously. The situation worsened due to the limited time he and his team had to fix this problem and release the game: in two months.

Levine and his team analyzed the feedback the following day to understand what they had gotten wrong. "We tried to listen to what the focus testers were saying and realized it was the simple little things," he said.

After studying the player's feedback, Levine noticed that *BioShock* used *in medias res* in a way that made it fall into a significant pitfall described in this chapter: lack of context. "My theory is that we didn't do a good job setting up who that character was. The primary thing is that players didn't understand who they were and their role in the world of *BioShock*," he explained. You may recall how this chapter described the game's opening scene. It begins with an airplane trip that went awry as it descended in flames from the sky and into the Atlantic Ocean. Levine and his team created this short sequence responding to how badly their test had gone. The original intro sequence started immediately after the crash, leaving it implied but never shown.

"Once we did that, the opening of the game became what it's known as because people got comfortable saying, 'Okay, I'm this guy in an airplane, it's 1960,' and so on," he said. Considering what Levine described, you can draw a parallel between the fiction of *BioShock* and the real-life stories of journalism. Any news report needs to contextualize its story by answering five questions.

The five Ws of journalism:
- What
- When
- Where
- Why
- Who[12]

The intro's original version failed to answer them all. But, after the revision, players had the complete picture they needed.

The five Ws of *BioShock*:
- **Who:** Jack is a young man.
- **When:** in 1960.
- **Where:** flying over the Atlantic Ocean.
- **What:** His plane crashes, and he enters a lighthouse.
- **Why:** to escape the freezing water.

Levine mentioned during his interview how he could've dismissed the tester's opinions but chose otherwise. "We took a very harsh amount of criticism, but instead of saying 'no, the audience is stupid,' we respected them." But listening to this negative feedback was still a challenge. Testers lacked a deep understanding of video game design and creative writing, so their reports were vague. Still, they were valuable. "Okay, they won't tell us how to fix it, but they're telling us they don't like something," Levine said. Digging deeper into how testers reacted, he and his team understood the flaws in *BioShock* and turned a possible disaster into a masterclass. "I'm proud of how that went," he concluded.

Final thoughts: when worlds collide

You can learn a lot about using *in medias res* in a documentary by studying video game storytelling. But your journalism expertise can also help you, as Ken Levine discovered the hard way. Even when skipping your story's introduction, you should contextualize it to viewers by answering the five Ws of journalism. You can choose to accomplish this goal in myriad ways:
- A text that shares this information.
- A transmedia approach. You can share these facts through other media.

- A short scene at the beginning of the documentary.

These are only a few alternatives. Your imagination is the limit. But remember why *in medias res* is a valuable tool in your toolkit: you're producing media for an audience that needs to feel engaged as soon as possible. Nobody said creating content in the age of distractions would be easy. Remember and use this information to guide your decision-making when producing your project. There are many ways to tell a story, and this narrative style is one to consider.

6

'BIOSHOCK' CAN HELP YOU IMPROVE YOUR MULTIMEDIA PROJECT

Break the mold. You learned through *BioShock*[1] that deviating from conventional storytelling wisdom is possible. Thanks to *in medias res*, a story does *not* need to start from the beginning. But this video game can teach many more lessons to journalists like you. After all, Ken Levine omitted how Rapture's civil war started, slowly unveiling these events throughout the game. You should learn the techniques he employed to do so. They can help you produce better virtual reality documentaries and multimedia articles. To explain how they can do that, take another look at *6×9: A Virtual Experience of Solitary Confinement*[2] to see how it shares its narrative. Then, you'll read the rest of Levine's interview to learn how ideas from *BioShock* could've improved it.

LISTENING TO THE PAST

6×9: A Virtual Experience of Solitary Confinement is a virtual reality experience that does more than let you explore a prison cell. It also tells the story of inmates who had to endure such punishment, and it does so through two methods. Focus on one first: sound. Exploring the solitary, you listen to short audio diaries where prisoners share their hardships.[3] These messages can significantly boost the audience's engagement with this project. This statement is what the researcher Emma Rodero concluded in her paper *Stimulating the Imagination in a Radio Story.*[4] She makes such a claim for a simple reason: a giraffe landing a space shuttle on Mars.

"Ridiculous!" This word summarizes your reaction to the previous sentence. But, as much as the scenario it described is absurd, you *could* visualize it in your mind. This ability to imagine inexistent things may seem trivial, but it's a critical difference between you and other animals. Thinking of what doesn't exist enables you to ponder different futures and wonder what might happen in each. This information lets you choose the optimal strategy moving forward.[5] And there are many other benefits to your imagination. For example, you can use it to engage your audience through audio diaries.

Rodero argues that audio-based storytelling, such as a radio play, is highly effective at stimulating people's imagination. They listen to the action and imagine the scene. And in doing so, they project their memories and personalities onto it, creating a more personal and engaging experience.[6]

Less can be more. So, if you're a journalist questioning how to make your projects more interesting, consider using audio diaries. You can use them in many ways. *6×9: A Virtual Experience of Solitary Confinement* is an example, but you can use them to your advantage in many project types, not only VR journalism. Long-form articles are strong contenders.

Using a multimedia approach, as seen in *Snow Fall*[7], a journalist can tell a single story using various mediums, including optional audio diaries. In certain moments of the narrative, the reader could listen to a testimonial in which the character shares his thoughts, for example. It'd be similar to using an internal dialogue, which is common in literature. The difference is that it'd be optional and happen in an auditory format. And this suggestion is only the beginning. It's up to you as a journalist to choose how best to tell a story, considering the challenges the era of distractions brings. But regardless of how you use audio diaries in your projects, *BioShock* can teach you plenty about extracting the most from this narrative device.

The Echos of Rapture

Ken Levine could've told the background story that led to Rapture's downfall in many ways. Flashbacks or dialogue exposition are examples. Instead, he used a mix of both: audio diaries. In *BioShock*, characters habitually record messages to each other and themselves. When you play the game, you find these tapes throughout the city. You can pick them up and listen to them. Each gives you insights into the events that led to the utopia's civil war. Take these as examples:

"New Year's Eve Alone" by Diane McClintock:

"Another New Year's, another night alone. I'm out, and you're stuck in Hephaestus, working. Imagine my surprise. I guess I'll have another drink... here's a toast to Diane McClintock, the silliest girl in Rapture. Silly enough to fall in love with Andrew Ryan, silly enough to — (Sounds of explosions and screaming) What... what happened? I'm bleeding... oh God... what's happening?"

"Watch Fontaine" by Andrew Ryan:

"This Fontaine fellow is somebody to watch. Once, he was just a menace to be convicted and hung. But he always manages to be where the evidence isn't. He's the most dangerous type of hoodlum... the kind with vision."

"Offered a Deal" by Peach Wilkins:

"The Irish porkpie offered me a deal. I flip 'em Fontaine, and I walk out of here. That simple. How do I know that fat fuck isn't Fontaine's guy? How do I know they're not all Fontaine's guys? Fontaine's got ADAM, and everybody wants it. Ryan's got a whole lot of talk and a nice suit. Even down here, any idiot can see which way the wind is blowing."

There are 122 audio diaries that you can find.[8] It's your job to put all these pieces together and organize the events they depict in a logical order that explains how the city fell. This fragmented narrative style is similar to putting a puzzle together but with no picture on the box to guide you. But these tapes bring a problem.

How could Levine ensure players would listen to them? After all, video games are interactive. Players are busy. So how could he make them pay attention to these recordings? To answer this question, Levine shared details on how he approached writing these messages in *BioShock*.[9] His words can teach much if you use audio diaries in your journalism projects.

THE BASICS OF WRITING AUDIO DIARIES

In terms of an ideal length, his answer is simple. "As short as possible. That's the ideal length of any writing you do," Levine said. To do this, he uses the writing technique of entering a scene as late as possible and leaving as early as feasible. "Many writers make the mistake of starting the scene early, so they dive in before its critical part, and they waste time with characters having unnecessary conversations," he explained. But how do you decide what's necessary? According to him, you need to discover the main idea you wish to convey and stick with only it. "Sometimes, the problem is that you have too many ideas to get across, so what's the core? Let me scrap the other ones. Perhaps you can add them to another audio diary."

Failing to follow this principle can lead to unfortunate results."If players start to listen to an audio diary for too long, they eventually will tune out. Keep those things fairly short because people will stop paying attention after a while," Levine explained. But this is only scraping the surface. When it comes down to this narrative device, psychological elements can make your writing more engaging.

Seeing words

Think of love. What did you see? Perhaps a couple holding hands, two people getting married, or something similar. There's a reason why you picture these scenes. You can't see love, only witness its effects. As it turns out, the human brain can't see abstract concepts like emotions, so it needs to "translate" them into mental images you can understand.[10] The same goes for other feelings. You can use this fact to ensure your audio diaries will delight your audience's ears. Write them using the language the human brain prefers. Use precise imagery instead of vague concepts like emotions. You can see this idea in many of the messages in *BioShock*. Here's an example:

"Bee enzyme" by Tasha Denu:

"Julie, my dear, I am trying to run a business here. You wanna spend time with my honey bees? Well, I'm gonna have to start charging you for the pleasure. If I come out one more time and find you lolling out there amongst my hives, **I'm grabbing my shotgun.**"

Reread the final part again. "I'm grabbing my shotgun." These words describe a precise action. Tasha could've said, "I'll be angry," but that would've been an abstract concept, making it more difficult for the audience to imagine these events. To prevent this situation, Ken Levine wrote an action symbolizing anger instead. In doing so, he made it easier for people to visualize the story, making it more likely that they'd project their memories and personalities onto it. The result is a more personal and engaging experience. So, remember this lesson regardless of how you use audio diaries in your journalistic project. And there's yet another insight Ken Levine can teach you.

I'll Tell You Later

Levine sometimes ends his audio diaries with a cliffhanger. This plot device consists of finishing a story, or part of it, showing a character in a difficult situation or about to make a significant choice.[11] The goal is to ensure the audience is curious enough to watch the next episode or the sequel. Audio diaries in *BioShock* can work similarly. They sometimes end right before a character is going to reveal, do, or choose something, incentivizing players to listen to the following message to know what happened next. Here are two examples:

"Meeting Atlas" by Diane McClintock:
"The people here have grown to trust me... Ryan's mistress, and still they take me in! They finally brought me to Atlas. Without him, the people of Apollo Square would give up. I asked him if he would lead the people in some uprising against Ryan. He sighed and said, 'I am not a liberator. Liberators do not exist. These people will liberate themselves.' I thought Andrew Ryan was a great man. I was a fool."

"Stopping Ryan" by Bill McDonagh:
"I never killed a man, let alone a mate. But this is what things come to. I don't know if killing Mr. Ryan will stop the war, but I know it won't stop while that man breathes. I love Mr. Ryan. But I love Rapture. If I have to kill one to save the other, so be it."

These characters are on the verge of taking crucial actions in both instances. Diane was about to join Atlas in the fight against Ryan. Bill decided to stop the war by killing him. These two audio diaries reveal cliffhangers in critical plot points, leaving players wondering what happened next, incentivizing them to keep listening to find out. Psychology knows this as the Zeigarnik effect. It states that people remember unfished tasks better than those they've concluded.[12] Suppose a writer opens a line of thought without giving it closure

subsequently. In that case, the story will continue in the audience's mind until its conclusion. Use this concept to your advantage and write your audio diaries with cliffhangers in mind. Also, remember the other lessons Ken Levine shared in this chapter.

Tips for writing audio diaries:
1. Make them as short as possible.
2. Stick to only one idea per message.
3. Only tell what's crucial.
4. Use people's imaginations to your advantage.
5. Write precise actions representing abstract concepts.
6. Use cliffhangers in critical plot points.

This advice will ensure that your audio diaries will engage people. But you may have raised some ethical concerns when reading Ken Levine's insights. After all, as a journalist, you must stick with reality. Therefore, the writing techniques explained here may seem incompatible with journalism, as they imply that you're distorting people's words to make your project more dramatic and engaging. This concern is reasonable.

PEOPLE'S PERSON

It's vital to clarify one thing. You should never fabricate words your interviewees never said. Instead, you should pursue a collaboration. Edit the interviewee's words without altering their meaning and obtaining approval from them. This approach is already standard practice in documentaries and written interviews. It's also one that Ken Levine uses when writing dialogue, and he discussed how he co-authors many lines with the actors. If you replace words like "actor" and "character" with "interviewee," you can see how it's possible to use these techniques while keeping journalistic integrity.

The first thing Levine addressed was a problem he faced a few times: dialogue failing to fit a character. "If the actor can't do the line, it's because it probably isn't honest," he said, highlighting that you must be flexible and change the script if necessary. Sometimes, actors can co-write with you, and you should allow them to partake in the writing process. Levine believes this is a crucial difference between good and bad performers. He exemplifies this concept with Troy Baker, who played Booker DeWitt in *BioShock Infinite*[13].

"There are actors like Troy Baker. He'll co-write in the room with you. He'll take a line and improvise off of it," Levine added. This approach creates a dynamic where the writer can create dialogue tailored to the actor's strengths. "I'm very flexible in the room, changing things," he said. As Frank Hauser and Russell Reich explained in their book *Notes on Directing:* "You're the leader, but you're not alone. The other artists are there to contribute as well. Use them."[14] As long as you involve your interviewees and allow them to co-author the lines, these will be engaging and dramatic but honest. They'll stay true to the person saying it. But all these efforts will be worthwhile only if you understand the following idea.

Making people go the extra mile

Audio diaries in *BioShock* are optional. You can play from start to finish without listening to them. But that begs the question: how did Ken Levine motivate players to collect and listen to these tapes? The answer is crucial for your journalistic project if you want to use audio diaries. For example, suppose you're creating a multimedia article that features this narrative device. If they're optional, what's stopping every reader from ignoring them? Or from listening to a couple and deciding to avoid them afterward? Ken Levine shared his answer: behaviorism.

"You have to reward players. If people do things and think there's no benefit, they'll stop doing it. So you must ensure you have a world with interesting stories," Levine explained. With that said, ensure users are hooked on the main story and expand on it using the optional audio diaries. If people are interested in the plot, they'll want to know more about it. Therefore, these messages can act as rewards and dopamine triggers if they reveal new, exciting insights, motivating your audience to listen more. This approach is similar to *Dishonored 2*.[15] You can think of it as a contract.

The unwritten agreement is that people will consume additional content if they receive exciting information as a reward. "Once you break that agreement with players and stop giving them cool things to find, they're gonna question why they're spending time on this," Levine said. Ultimately, it goes down to respecting your audience's time. You must reward them for investing it in your audio diaries. "Respecting the audience's time is a premium responsibility. When a gamer is playing one of our games, I always want them to feel we care about their time and reward them for investing it," he explained. It's critical to remember this reasoning is vital. It'll help you prevent a common pitfall associated with audio diaries.

SECOND-TIER CONTENT

This term represents the way many titles treat audio diaries. Since these tapes are unessential for people to finish the game, many developers use them to share whatever they deem insufficiently interesting for the main narrative arc. The result is that most players choose to ignore these tapes. Avoid making the same mistake. Use these messages to increase your story's depth and open new sub-plots. Don't use them to include second-tier content in your project to make people think they're getting more out of it. And speaking of quantity, Ken Levine has one last piece of wisdom to share.

DIVERSITY IS THE SPICE OF LIFE

This old saying can motivate players to listen to your optional audio diaries. Rewards can encourage people to engage in a specific behavior. But, they'll feel even more compelled if these recompenses vary.[16] This psychological fact can make your journalism project more engaging. Diversify the information your audio diaries deliver. You can have some wherein a narrator shares some facts about the story. You can have others where characters discuss their thoughts, while some could be about you sharing your experience working on the project. If information is the reward people will get for listening to your audio diaries, it pays to add diversity. And this advice concludes the discussion on audio logs. But there still are more lessons you can learn from *BioShock*.

WHAT YOU SEE IS WHAT YOU GET

With these lessons from Ken Levine, you now have an excellent foundation for using audio diaries to tell a story in your journalistic project, whether a multimedia article or a virtual reality documentary, like *6×9: A Virtual Experience of Solitary Confinement*. And, speaking of which, audio diaries are only half of how it tells its story. This VR experience also uses "environmental storytelling" to inform its users. Imagine you're visiting a friend to understand what this term means.

You enter his bedroom. You see childhood photos of him playing with toy cars. As you continue looking around, you spot a racing helmet and many trophies. What can you infer based on this description? Your friend wanted to be a racing driver as a child. He pursued his dream and today has successfully entered the sport.

You organized this sequence of events based on what you saw around you. This process is what environmental storytelling means: informing through environments.[17] 6×9: *A Virtual Experience of Solitary Confinement* uses a rudimentary version of this concept. It displays words on walls, as the following image shows (figure 1). Each represents something relevant to the story. They paint the whole picture when you listen to the audio diaries.

Figure 1. Words projected on the wall inform users during this experience. (Credit: The Guardian)

Ken Levine says environmental storytelling is crucial for interactive experiences like virtual reality documentaries or video games. The reason is simple. "The player is busy," he said. "He's running around, shooting things, trying to understand the game so he can take in verbal information at a fairly low rate but can take visual information at a very high rate," he added. "With *BioShock*, we tried to fill that visual space as much as possible, so players leave with far more information than they would if they had received it with dialogue," the creative director concluded.

But how 6×9: *A Virtual Experience of Solitary Confinement* uses a prison cell to educate its users could've been better. You must learn two critical principles behind compelling environmental storytelling to understand why. They come from a GDC presentation by the game developers Matthias Worch and Harvey Smith.[18]

1- Themes: Consider the digital environments you make as characters in a story. They need to reinforce its theme.[19] Therein lies the problem with 6×9: *A Virtual Experience of Solitary Confinement*. The words on the walls are well-organized. But, this production aims to inform people about the psychological trauma that solitary confinement can inflict on inmates, often leading them to madness. This situation shows a discrepancy between the experience's themes and its visuals. As you learned in chapter four, avoiding contradictions is vital for immersion.[20]

2- Personality: Effective environmental storytelling can also tell plenty about the people who live in a space. After all, imagine you're walking around someone's bedroom. You notice it's well-organized, and hundreds of books fill bookshelves. You can infer some things about this person based on these observations. Someone's external world can communicate much about their inner one. Therefore, 6×9: *A Virtual Experience of Solitary Confinement* represents a missed opportunity. Through graffiti and projections on the walls, it could've used environmental storytelling further to inform its users about the prisoner's background story and personality. Another game from Ken Levine, *SWAT 4*,[21] exemplifies this idea in the following image (figure 2).

Figure 2. This mission in *SWAT 4* has you raiding a cult´s headquarters. (Credit: Irrational Games)

This analysis doesn't wish to belittle the efforts of the professionals behind *6×9: A Virtual Experience of Solitary Confinement*. It's a remarkable example of virtual reality journalism. It deserved each award received. This chapter instead wishes to illustrate that you can learn from its successes and shortcomings. Hopefully, what you've read has got you thinking about the many exciting ways you can use audio diaries in your journalistic projects. Likewise, environmental storytelling has entered your narrative toolkit, ready for you to use when appropriate. So, the following few pages are about how *BioShock* uses this concept to tell many parts of its story. They'll show you how to build upon what you saw in *6×9: A Virtual Experience of Solitary Confinement* and take your virtual reality project to new heights.

Environmental storytelling in 'BioShock'

When you arrive in Rapture, all you see is destruction. Rubble and corpses litter the streets. Blood paints the walls. Surrounded by the aftermath of the city's civil war, it's easy to think of it as a huge mess, but what you see in *BioShock* is carefully crafted chaos. Every inch of this city tells you a little about how it used to be and how it became ruins. See an example.

The image below is the first significant location in the game. It's the Kashmir Restaurant, where the city's elite enjoyed the best food, drinks, and treatment money could buy. It's also the civil war's epicenter. Matthias Worch and Harvey Smith analyzed this area to highlight what makes its environmental storytelling effective.[22] Read their conclusions.

Figure 3. This scene greets you as soon as you walk into the restaurant.
(Credit: Take-Two Interactive)

The history of what has happened in a place: As soon as you enter the restaurant, you see party decorations and a neon sign that reads "Happy New Year 1959." It indicates when this society fell and tells you why people were celebrating. You also spot a poster telling you the kind of party: a masquerade ball. Walking deeper into the restaurant, you can see more than destroyed furniture. You spot dead bodies and blood on the walls. These visual elements tell you that a violent conflict happened. It wasn't a fight. It was a massacre.

Who inhabits it and their living conditions: While you walk through the Kashmir, based on its decoration and furniture, it's clear that this establishment had high standards, and so did its customers. Who dwelled there? Rapture's elite. But this is all history when you arrive at the restaurant. Most of these people lie dead on the floor. But the area is still populated by those who destroyed the city.

The place´s purpose: When designing a location, ensure people know what it is as soon as they enter it. For example, players can see the Kashmir is a restaurant. *BioShock* has many locations, including medical wings, parks, and shopping galleries. All are identifiable from the first moment you walk into them and sometimes even before. For example, Rapture often features signs informing players of nearby establishments.

What might happen next: You can also use environmental features to foreshadow some events, but notice the word "might." Not every area in *BioShock* tells you what awaits, but they can do that occasionally. The Kashmir is an example. Before entering it, you find a pistol: the first firearm you can get in the game. The blood you see on the wall tells you what will happen next.

The mood: Every story needs one, especially in immersive media. They aim to immerse people in a digital world. Therefore, they must set an ambiance. In *BioShock*, every area of any level reinforces the themes and the mood presented in the narrative. Take the Kashmir Restaurant as an example. The dread is evident when you walk into it, with low lighting, destruction, and corpses all around.

Establish a chain of events: Remember that you're trying to tell a story. Therefore, you must plot the events you want the environment to convey to people.

Ensure engagement: Engaging narratives are the ones that capture your imagination. This fact also holds in this storytelling style. Create environments that imply meaning but leave it up to people to draw connections and reach conclusions. Show. Don't tell.

Following these artists' guidelines will give you a solid start when telling stories through environments. But in addition to the applications explored in the last few pages, environmental storytelling can also convey specific information. For example, you can use a series of propaganda posters on walls to reinforce a city's ideology or graffiti to express what its citizens are thinking. Remember that you can communicate a lot with what people see. But you can also take things even further.

PUTTING THE PUZZLE TOGETHER

Playing *BioShock*, you often see corpses of Rapture's citizens. Most of these people were casualties of the civil war, but some have more intricate stories behind how they died. To tell these tales, Ken Levine combined audio diaries with environmental storytelling. For example, you can find the following message from a desperate mother:

"Masha, come home" by Mariska Lutz:

"Darling Masha — We don't know what has happened to you... Ryan's men have taken you away and said you are needed to save Rapture. Who needs a child to save a city? But I see these little girls crawling out of these vents, and I wonder if you might one day crawl out of this vent and find this note. We look for you, but if you find this, come to us at the Fighting McDonagh's in room number seven. The code for our room is 7533. We miss you, our darling child."

The location Mariska mentions, the Fighting McDonagh's, is a pub you can find in Rapture. If you decide to go there, you'll see room number seven. The door is locked. You enter the combination on the keypad: 7533. You step inside the room, and Mariska's fate becomes apparent as you walk into this scene (figure 4):

Figure 4. Many players regard this moment as one of the saddest in the game. (Credit: Take-Two Interactive)

There's an audio diary in the room:

"Saw Masha today" by Mariska Lutz:

"We saw our Masha today. We barely recognize her. 'That's her,' Sam said. 'You're crazy,' I told him. 'That thing? That... that's our Masha?' But he was right. She was drawing blood out of a corpse by Fontaine Fisheries, and then when she was done, she walked off hand in hand with one of those awful golems. Masha!"

In the image above, you see the corpses of a man and a woman. They share their bed with several blue pills and a photo of Masha. You can understand what happened by compiling all the information from the audio diaries and this scene. The couple wanted their daughter back but realized she'd never return. Disheartened, they tried to cope with their grief, but their pain became unbearable. Finally, they had to end it. The blue pills gave them the relief they sought. Their bodies would remain untouched until you walked into their room.

This short narrative is only one of many that you find in *BioShock*. The interesting lesson here is how you can use different mediums to tell parts of the same story. In this example, Levine used an audio diary to give a hook that shows why you should care about it. Then, once he established the context, he used environmental storytelling to deliver the punch. Albeit short, these mini-narratives inside *BioShock* are an element many players fondly recall as they listened to these recorded messages and observed the world around them. They were able to do so thanks to crucial psychology principles.

Mind Games

After the explanations and examples provided in the previous topics, it's time to discuss which psychological concepts enable environmental storytelling to happen. Understanding them will deepen your understanding of this narrative style and make it easier to tell stories through places. So, read below about these three concepts.

1- Gestalt: This term means "the whole is greater than the sum of its part." Players exploring an environment tend to see it as a cohesive whole instead of picking individual pieces apart.[23] This fact is critical for environmental storytelling. It allows players to see several objects as part of a group.

2- The principle of proximity: It represents the meaning formed between two objects when they're next to each other.[24] For example, you saw Mariska's corpse next to blue pills. Thanks to the principle of proximity, you connect them and understand their meaning.

3- The human brain is hardwired for stories:[25] You automatically create a narrative when you see all the facts about Mariska's fate. The same principle happens throughout the game. As you observe the world, you tend to create stories.

What you've just read is only a summary. Hundreds of books on the psychology of storytelling and video game design exist. These materials can help deepen your understanding of how people's minds operate when experiencing environmental storytelling. But, for now, it's time to conclude this chapter.

FINAL THOUGHTS

Although productions like 6×9: *A Virtual Experience of Solitary Confinement* and *Snow Fall* give you a fascinating glimpse into journalism's future, they're only the beginning. You can take lessons from them and continue improving. It's up to you to determine how to use best the information you learned here. You may fail on your first attempt, and that's fine. Ken Levine has some final words of encouragement to share with you.

*"Anything you work on is going to be bad, especially narrative. But if you're lucky, it gets good. You have to get comfortable with failing and understand that it's part of the process. It doesn't matter the state it's in right now. Where this is going to go is what matters. Anything can become good with the right work. Any story can become a good story. It just takes the right person, the right amount of time, and being honest with yourself about its quality. And keep making it better. Nothing is going to come out good the first time." – **Ken Levine**

Although these pages tried their best to describe *BioShock*, nothing replaces playing the game yourself. You may have read hundreds of novels and watched thousands of movies. Still, there's nothing like immersing yourself in an underwater metropolis, trying to uncover how its utopian dream turned to ashes. Half storytelling, half puzzle, this game's narrative will hook you from the start. Although this chapter has spoiled some parts, they're minor. The big pieces are still mysteries for you to solve. Hopefully, this passage has motivated you to go miles into the waters of the Atlantic Ocean for a virtual visit to Rapture. Atlas is eager for your arrival.

7

'PERCEPTION' CAN HELP YOU MAKE A MORE EMPATHETIC DOCUMENTARY

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Close your eyes. Try to pick up objects, eat dinner or walk inside your home. You'll need help to complete these simple tasks. Even the most straightforward actions become significant struggles when you can't see. But you have a blessing. You can open your eyes and see the world. Some people, however, aren't as fortunate. This chapter discusses a game that puts you in the shoes of one of them. *Perception*[1] is a title in which you have a sample of the challenges a blind person faces. It makes you play the role of Cassie, a sightless woman. This title aimed to raise awareness about the hardships of people with visual impairment. Crafting an empathetic protagonist was vital for this aim. It succeeded in its goal and can teach you a lot.

Journalists now go beyond the news. They've become storytellers to engage their audiences, especially in long-form reporting, like documentaries and books.[2] But, any compelling story must have a protagonist people wish to follow.[3] Therefore, you must ensure the narrative you share features a main character with whom the audience can empathize. Empathy is this chapter's topic. It features quotes from an exclusive interview with the writer of *Perception*, Amanda Gardner, to discuss how she created a relatable character.[4] It then uses her insights to analyze how a journalist such as yourself can portray people in a manner the audience can identify, making your project more engaging. This passage ends by discussing the ethics behind using the techniques shared herein in journalism. To start this discussion, you need to understand empathy.

THE MIRROR WITHIN

Empathy is a word you hear often. But what does it mean? It'd help if you understood it before reading about its relevance to storytelling and journalism. Empathy is observing someone else's emotions and feeling them as yours.[5] You've undoubtedly felt bad for another person's struggles. The same goes for positive emotions. Likewise, you've felt good witnessing another individual's happiness. But what enables this phenomenon, and what's its link to storytelling?

Mirror neurons. According to researcher PJ Manney, they allow you to understand the behaviors and feelings of others.[6] Above all, they can also make you feel other people´s emotions, enabling you to understand their distress so you may better connect with them. This effect has helped humanity for millennia.

Humans developed these neurons to aid the species' survival. As you may imagine, life was harsh thousands of years ago when your ancestors had to live in the wild. But mother nature decided to help humans. Each person was weak as an individual unit, but the opposite was true when people united. For this reason, humans started to develop mirror neurons. The goal was to make people cooperate through empathy. As a result, your ancestors stayed together to look after each other, ensuring the group's survival.[7] Thousands of years later, humanity is still on this planet for many reasons, including its ability to empathize. But it had an unintended side effect: it made you care for unexisting people.

You've empathized with many fictional characters. You cheered with them in moments of fortune and cried in times of despair. But why would you ever do this for people who aren't real? Manney mentions this peculiarity in his research. "Whenever empathy evolved in our mammalian past, it wasn't thinking we'd be reading *Oliver Twist* and feeling sorry for someone we never met, were not related to, had no chance of actually helping, and didn't exist."[8] But his study reveals an exciting twist. Well-developed fictional characters can trick your mirror neurons into believing in their existence, thus enabling empathy to occur.[9] This fact is critical for compelling storytelling.

Empathy drives you to bond with others. The same principle is true for fictional characters. If you empathize with them, you'll care about their emotions, struggles, and pursuits. This connection makes you desire to follow them and know their fate. In short, empathy is critical for engagement in storytelling.[10] When people can't connect with characters emotionally, whoever is watching, reading, or playing the story will be disinterested in it. The result? Your worst nightmare: a

bored audience. Later in this chapter, you'll learn how to ensure people will empathize with your characters, which can lead to an exciting consequence apart from creating heightened engagement. It can make you an influential educator.

EMPATHETIC LEARNING

Stories are crucial for creating harmony. "Narratives are valued across all cultural groups as one method of promoting mutual understanding," explain Rhonda Moore and James Hallenbeck in their essay *Narrative Empathy and How Dealing with Stories Helps*.[11] The researchers argue that empathy in storytelling allows you to glimpse someone else's life. In this process, you can see the world from that person's perspective so you may better comprehend them. You can feel their pain, see their struggles, and understand their hardships through empathy.[12] With this concept in mind, you can feel compelled to improve their world and yours in turn—plenty of examples in various entertainment types show this concept in use.

You've read novels about the horrors of the holocaust and watched movies depicting racism, sexism, bullying, and other sensitive topics. These works portray real issues and allow you to see the struggles of oppressed people as you witness the world through their lenses. According to the neuroscientist Christian Keysers, these stories can persuade people to fight for a fairer and more inclusive world.[13] Moreover, they can make audiences take prosocial steps to lessen the pain of the marginalized individuals portrayed in these narratives, helping better integrate them into society. This statement holds for any form of storytelling, even journalism.

THE EMPATHETIC PRESS

Journalism can change the world through documentaries like *13th*.[14] It discusses the "intersection of race, justice, and mass incarceration in the United States."[15] It features inmates sharing their stories via interviews.[16] Through them, the audience can empathize with these men as it gets a glimpse of what racism feels like, increasing the chance of viewers taking steps to fight this injustice. This experience is powerful, but you must know a few things before trying to work on a similar project.

FOSTERING EMPATHY

Blake Snyder offers his thoughts on the art of character development in his screenwriting book *Save the Cat*.[17] According to the screenwriter, a big part of empathy is seeing yourself in other people, which means finding their experiences, feelings, and desires relatable. Therefore, if you want your documentary to resonate with a big crowd, you should focus on the protagonist's primal needs. These include the pursuit of love, knowledge, or safety, among other universal necessities. But this is only the start. According to Snyder, there are four other attributes to remember. They're:

1- You can identify with them: Primal needs are a starting point only. People are full of traits, skills, and nuances in their personalities. They're complex. But some authors struggle to add complexity believably and empathetically. Some writers reckon that adding many traits to a protagonist is enough to accomplish the job. They're wrong. In his book *Story*,[18] Robert McKee explains why.

He recalls his days as an actor when he had to play a man named Jesse. This character had recently left jail but knew everything about anything. He could play the saxophone, was a black karate belt, and mastered the world of stocks, among many other things.[19] This script's writer probably thought he was creating a complex individual, but McKee explains the big mistake in this approach:

> *"Jesse was as flat as a desktop – a cluster of traits stuck on a name. Decorating a protagonist with quirks doesn't open his character and draw empathy. Rather, eccentricities may close him off and keep us at a distance." – Robert McKee*[20]

McKee's example shows that creating sympathetic characters goes beyond simply giving them many skills and characteristics. This approach will turn them into invincible superheroes. Are there any of them in your audience? Probably not, so you shouldn't appeal to them. Instead, it would help if you aimed for a character who shares similarities with your fellow humans. People have skills, but flaws are also ever-present. Even a successful person has fears, insecurities, and problems. Address them in your documentary. Avoid showing your protagonists as perfect creatures. People won't admire them. They'll disconnect from them.[21]

2- You can learn from them: According to Raph Koster's book *A Theory of Fun for Game Design*, people enjoy the mental stimulation of learning new things.[22] And the stories people share are a profound source of learning. As Jonathan Gottschall says in *The Storytelling Animal*,[23] witnessing other people's conflicts and choices drives you to think about your own, making you learn in this process. A skilled writer takes advantage of this fact by emphasizing relatable conflicts and decisions that people can watch in suspense and from which they can learn, boosting their enjoyment. But to use this concept, you must focus on one thing: movement.

Good stories feature motion delivered through action and consequence towards a goal. The protagonist does A, causing B, which drives him to do C, resulting in D, and so on.[24] This cycle continues until the end. Consequently, characters and their relationships also need to change gradually throughout the narrative, leading them to a journey of learning and growth. According to Jason Kent in *Aristotelian-Inspired Screenwriting*, a protagonist that never learns is monotonous.[25] He compares stale characters to paintings. "You can only stare at paint for so long because it's static – it doesn't move or change. If you stare at a detailed portrait for long enough, eventually, you will lose interest."[26] And these changes ensure one thing.

3- You have a compelling reason to follow: This topic is mainly about story structure instead of character development, but these two subjects intertwine. What makes a person read an entire novel? They wish to know what happens next. Celeste Kidd and Benjamin Hayden say that curiosity drives you to learn, and people love absorbing new information.[27] You can take advantage of this fact.

Entice your audience with an intriguing dramatic question you promise to answer eventually. But also ensure that your protagonist constantly faces new and more considerable challenges so people always wonder what will happen next. If done correctly, these new threats will spark the audience's curiosity on whether they'll win. People are likely to empathize with a character if they're wondering what happens next.

4- You believe they deserve to win: Most people think they're good and deserve to win, despite their flaws. It's essential to keep this information in mind when creating a documentary. If you want people to see themselves in your protagonist, showing their redeeming qualities is critical.

Writers have created these rules for fiction. But, since journalists have become storytellers, it's wise to add these techniques to your narrative toolkit as you create a documentary, reportage, or book. They'll ensure that your characters will engage audiences even in an age of distractions. But what if you want to create an interactive experience?

You may invest in VR journalism, for example. But, to pursue such an endeavor, you must beware of one thing: making people empathize with characters in a digital environment is more complicated, as there are more variables to consider. But, before discussing these intricacies, learn the empathetic benefits of using VR in journalism.

A MORE EMPATHETIC VIRTUAL REALITY

This technology heightens empathy. It shatters the barrier between the narrative and yourself as you "enter" the story's world. As a result, you feel more connected with the people in it. You feel more empathetic towards them, as two researchers have discovered.

Nicolla Shutte and Emma J. Stilinovid conducted a study with 24 students to test how VR influences empathy levels.[28] The volunteers watched the eight-minute-long documentary *Clouds Over Sidra*,[29] in which a young girl named Sidra gives you a tour of a refugee camp in Syria. The researchers randomly selected which participants would watch the video in a standard format and which would experience it in virtual reality.

Shutte and Stilinovid then measured how much the participants empathized with Sidra. They shared various statements and asked the volunteers to rate them on a scale from 1-5, depending on how much they agreed with each sentence. After analyzing the data, the

researchers concluded that the virtual reality experience gave people greater empathy for the girl.[30] But, this experiment is only about using VR to follow a protagonist who guides you. There's an even more personal way to interact with someone in a virtual world.

As *6×9: A Virtual Experience of Solitary Confinement*[31] has shown, it's possible to use this technology to embody someone else. This sentence is the premise of *Hero*.[32] It's a virtual reality experience that puts in the shoes of a survivor after a bombing in Syria. Throughout the story, you walk through a destroyed city, making choices. These determine whether you'll survive. The aim is to use virtual reality to make Western audiences go through the hardships that people in Syria face so they may better understand their struggles.

Reading the previous paragraphs, you may have become interested in using empathy to boost your project's engagement. You should proceed with care. After all, the line between journalism and propaganda can be thin. So, later in this chapter, you'll read a brief discussion on ethics. But, for now, the following pages will explain how to portray someone empathetically in a virtual environment. *Perception* is the object of study.

Understanding 'Perception'

Released in May 2017, this horror game puts you in control of Cassie from a first-person perspective. Blind since birth, nightmares haunt her as an adult. Every night she sees an abandoned mansion in her sleep. Determined to discover why, she investigates, leading her to learn that this place exists in "real life." Inching closer to the truth, she travels there. But once she steps inside, she feels a presence. Someone, or something, dwells there. You must discover this man-

sion's harrowing past, guide her to safety, and escape. This task may sound daunting, but the worst is yet to come. You must do all this blind. And with that said, it's time to answer a question that has probably crossed your mind.

How do you play blind?

Fair question. Gaming is a visual activity, after all. To navigate the mansion, you use "echolocation." It consists of making noise by tapping a cane against the floor. Based on the time it takes for the sound wave to hit objects nearby, you know how far they are.[33] But this presents another problem for this game.

"Seeing" with sound would be impossible for an untrained person. So to reach a large audience, Amanda Gardner needed to turn this technique into something accessible to most people. With that said, *Perception* features a visual representation of this concept. The result is the following image (figure 1):

Figure 1. This visual representation of echolocations enables people to play the game. (Credit: The Deep End Games)

You must press a button to tap Cassie's cane against the floor. The resulting sound waves bounce on objects nearby, and an outline appears where they hit. But it fades away in seconds, meaning you must constantly use echolocation. Doing so creates a problem, however. The sound attracts the presence in the mansion. So you must use echolocation as sparsely as possible but often enough to see what's around you. This balancing act is tricky. But Amanda didn't want to portray blindness as something to fear. "We wanted to avoid stereotypes and the notion that being blind is scary," she said. So creating this experience involved many hard decisions.

EMPATHY IN INTERACTIVE MEDIA

Interactivity complicates things. Whether you're making a video game, a virtual reality documentary, or any other interactive story-telling project, this statement holds. In them, people go beyond reading about the main character's adventures or watching them unfold on a screen. Instead, they control the protagonist or follow them. This perspective shift forces you to take a different approach from films, articles, or books.

According to Anthony Burch, lead writer of *Borderlands 2*,[34] you must do two things to get people emotionally invested in a character within a digital environment.

1- Create an exciting, relatable personality through the techniques mentioned in this chapter.

2- Ensure that players and the main character have the same goals so they don't feel the game forces them to do what they don't want.[35]

Many games struggled to achieve this second point, and their stories took a turn for the worse.

EMPATHETIC MISTAKES

Mirror's Edge[36] is a negative instance of this concept. This title takes place in a corporate-ruled dystopian future that regulates all access to information. A group of parkour specialists, Runners, have decided to fight against this oppressive state. They use their free-running skills to deliver illegal data to their clients. You play as a Runner: Faith Connors.

An ordinary day goes awry when your sister, Kate, gets framed for the murder of an influential politician. It's your job to find the killer and free her. This premise sounds exciting. But its potential went unfulfilled. This narrative made people empathize less with the game's protagonist. Learn why.

Many games put players in the shoes of someone with an ongoing relationship and use it as the story's goal. This approach is a mistake, as *Mirror's Edge* exemplifies. The main character cares a lot about her sister, but the player only meets her for two minutes in a brief cutscene. As a result, gamers never had the chance to connect with her. So, the protagonist's goal is to free Kate, but players have zero interest in that. This scenario leads to a disconnection between both parties, making it difficult for any gamer to embody and empathize with the protagonist they control. They feel the game forces them to do something they don't want, resulting in a less engaging experience.

The previous example only addresses cases in which players embody a character in a digital world. But, this effect can also happen in an experience wherein the audience follows other people. Think back to the VR documentary *Clouds Over Sidra*. She walks you through her refugee camp. One critical element that makes you empathize with her is that she wants to show you around, and you want to see what she's showing you. So, there's unison between your goals and hers. But imagine there was a conflict between them. Suppose she wanted to show you something, but you wanted to look elsewhere. Her telling you to look at what you do *not* want to see would lead to apathy. This mismatch in objectives is what hurt *Mirror's Edge*. But enough of the negatives. There are many good examples of games creating sympathetic characters. *Perception* is one of them.

Empathy in 'Perception'

This topic will tell you how Amanda Gardner presented Cassie in a way that drives players to connect with her. To do this, the writer used two elements: story and game design. Start with the former. Its main goal is to investigate the abandoned mansion to discover why it haunts Cassie in her sleep. This premise's intriguing nature means gamers will likely want to find the truth, just as Cassie does, meaning they have the same goal. Also, the story is about a mystery. Therefore, Cassie and the player head into the unknown together and receive new information simultaneously. These two factors ensure that both parties are "on the same page," allowing players to emphasize with the person they control. But there's an exciting twist: like *Mirror's Edge*, *Perception* shows Cassie's relationships in a way that strengthens her character instead of weakening it.

During her journey, a man, Serge, stays in touch through the phone. He wishes to find Cassie at the abandoned mansion to save her from danger. Their dialogue shows they have a lot of history together, but Cassie declines his help. She doesn't want him in harm's way. Despite her life-threatening situation, the first thing that comes to her mind is her friend's safety. As John Truby says in his book *The Anatomy of Story,*[37] an effective way to communicate the character's personality to an audience is to put them under pressure.[38] It's easy to be cordial when all is well. But it's in moments of crushing despair that one's true personality emerges. During such times, a core attribute of Cassie appears.

She's selfless. How she treats Sage shows you that. Even in such a situation, Cassie still prioritizes his safety. Her attitude shows you who she is, and you get this insight into her personality thanks to her interactions with a good old friend. *Perception* uses Cassie's existing relationship to deepen her character instead of making it the

story's driving force, as *Mirror's Edge* did. Thanks to this approach, Amanda Gardner showed it's possible to have a video game narrative about characters with an existing relationship, so long as you're careful about how you use it. Now, learn how the game design of *Perception* helped players become more empathetic toward Cassie.

There are two noteworthy aspects. First, the gameplay is minimalistic. There are only a few interactions players can make. If you think this sounds negative, reconsider. This approach is known as "design by subtraction," attributed to the Japanese designer Fumito Ueda.[39] It consists of removing everything from a game that doesn't contribute to the project's goals. For example, *Perception* aims to tell a story, create an empathetic protagonist, and use echolocation to make the audience understand blind people's struggles. This title seldom offers interactions that don't contribute to these objectives.

This *modus operandi* allows players to focus exclusively on the game's main feature: using echolocation to navigate an environment. Above all, this approach keeps them focused on the narrative's goals. Adding more possible actions could distract gamers from the story, weakening it. With that said, you can see how *Perception's* game and narrative design put players and Cassie on the same page regarding their goals and emotional reactions to the plot's events. The result is a protagonist with whom the player can empathize.

But, of course, to take advantage of these techniques, you must first create a relatable protagonist through the four principles you learned here. Mastering the craft of characterization is still a must. But once you get it right, you'll have a story that keeps people playing to discover what happens next. It may even change the world. This last statement may have sounded exaggerated, but it's more plausible than you imagine.

ADVANCED EMPATHY CONCEPTS IN INTERACTIVE MEDIA

Scholars have studied how to design video games that raise awareness about real-life issues. In the following pages, you'll learn about one of them. In 2010, Mary Flanagan and Jonathan Belman published the essay *Designing Games to Foster Empathy*.[40] It describes how a designer can use interactive experiences to make people empathize with an oppressed group. In their paper, the researchers developed four rules you should follow to accomplish such a goal. You've already learned two, so the following pages will explain the others.

Principle 1: Players are likelier to empathize if there's a trigger at an experience's beginning. The game may explicitly ask them to empathize or subtly encourage them to act empathetically.[41]

Perception's first minutes employ this principle. The game uses its introduction to subtly encourage players to empathize with Cassie's struggle and with blind people. The story opens with you controlling her as a child. Blind as a toddler, the other kids in school bullied her, giving you an insight into the social difficulties of growing up with a disability. Considering that bullying is a situation many people have either faced or feared, the game starts with a painful problem with which you can connect, allowing you to empathize with Cassie from the start.

Principle 2: Tell players how their actions can address the issues represented in the game.[42]

As Flanagan and Belman state, "the link between empathy and helping behavior is well-established."[43] This fact is a green light for game designers to use their characters to advocate for a real-world cause. The most straightforward approach is to have the game say that play-

ers can donate money to a charity. However, a developer could be more subtle. For example, "a game about assisting peers at risk for suicide might require players to notice symptoms of suicidal ideation in non-player characters (NPCs)," the researchers explained.[44]

Perception uses this principle in its gameplay. Considering the difficulties players will face when familiarizing themselves with echolocation, they wish that designers had designed the game's environments to ease blind people's lives. So, once gamers finish the game, they'll understand the importance of considering these needs when designing a new building. Hopefully, this will educate people on this problem. Like all other techniques herein, this one applies to any interactive journalism project, like a virtual reality documentary, but doing so could bring you some concerns. It's time to address them.

ETHICS

During her interview, Amanda Gardner mentioned the ethical challenge of telling a story to make the audience empathize with a person. "Writing a game that fosters empathy as the original goal sounds almost manipulative. Cultivating compassion is good writing, not the reason you should write," she said. Her statement shed some light on the dilemmas that can occur using the techniques mentioned throughout this chapter. "Manipulative" is the keyword here. You're a journalist, not a marketer. Your oath is to stay factual, not to pitch a narrative. It's critical to remember this fact so that you may avoid the following reasoning:

> *"It's impossible to tell everything there's to know about a person. So I must choose which aspects to convey and which to omit. I'll pick the ones that'll make my documentary's protagonist more empathetic so that more people will watch it."*

This logic may sound reasonable. But it's misguided and potentially dangerous. As much as you wish to make people empathize with your main characters, you must remain neutral. It's critical to always show a counterpoint to your protagonist's strengths and weaknesses. With that said, these projects should have at least two journalists writing the script to help prevent their stories from only being *based* on facts. You can also bring a third professional to analyze the finalized screenplay to give his input without being emotionally involved in the project. You're making journalism, not propaganda.

Final Thoughts

Hopefully, this chapter helped you to understand the similarities and differences between interactive media and other storytelling types when writing an empathetic protagonist. If you have the time, play *Perception*. It's undoubtedly a game that shows you how to craft a sympathetic main character in this medium. Is it perfect? No. But you can't let the negatives overshadow the positives.

Titles such as *Perception* prove that video games and other interactive experiences are viable platforms for discussing essential real-world issues. As a journalist, it's a vital tool in your toolkit. As Amanda Gardner mentioned during her interview, "The idea that games can bring us closer to each other and open up our hearts and minds is a compelling and fascinating future that I'm thrilled to be a part of." Hopefully, you're as excited.

8

'THIS WAR OF MINE' TEACHES YOU THE ART OF PROCEDURAL RHETORIC

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Humans have always documented history. Millennia ago, your ancestors painted cave walls with images depicting their hunts. And when people developed written languages, they started writing about daily occurrences. For example, in 59 BC, ancient Rome began publishing political speeches and reports detailing public interest events. Many other societies did the same.[1] In the two thousand years that followed, people worldwide continued documenting relevant matters, birthing a new profession: the journalist. As these professionals improved their craft, many journalism genres emerged, including one that may sound counterintuitive: opinion journalism.

Its premise is simple. Instead of reporting facts, you use them as a starting point and write an essay or a speech with your interpretation and opinions.[2] This practice was prevalent in the XIX century. Most newspapers received funding from political parties and published argumentative articles that discredited their investor's opposition. But, this approach created a problem. It divided the readership. Readers would only buy a newspaper if it agreed with their beliefs, lowering its potential revenue. With this situation in mind, journalists started writing politically neural content to broaden their target audience.[3] But this shift didn't kill opinion journalism.

Journalists continued writing argumentative essays. But, newspapers started labeling these articles as opinionated, putting them in a specific tabloid section. Today, this practice still happens. These professionals share their thoughts through designated segments in all media types, like newspapers, websites, and television shows.[4] But there's one platform they're yet to explore: interactive experiences. These can open many exciting opportunities. How and why? To answer these questions, you must learn one thing. This medium has created a new argumentation type that explores the strengths of digital content, allowing journalists to be more persuasive.

ACTIONS SPEAK LOUDER THAN WORDS

They can also be more convincing. And this is the premise behind "procedural rhetoric." Instead of using the written or spoken word, this new argumentation type uses interactive experiences that persuade the audience to believe in the author's perspective.[5] For example, some people reckon that poverty always results from poor judgment or laziness. If you wish to convince them otherwise, you can create a game wherein the goal is to accumulate wealth. But

there's a catch. The player starts with fewer points than the opponents. You can also tweak the rules to make progression much more challenging, giving this participant a glimpse of how unjust poverty can be. Students have already turned this premise into reality.

Stanford University's Virtual Human Interaction Lab created the virtual reality game *Becoming Homeless: A Human Experience*.[6] It puts you in the shoes of someone who's getting evicted. According to its website, you must "interact with your environment to attempt to save your home. To protect yourself and your belongings as you walk in another's shoes and face the adversity of living with diminishing resources."[7] This project puts you in this situation to make an argument. "There's a misconception that losing one's home is due to who you are and your choices. *Becoming Homeless* seeks to counter this belief."[8] The researchers responsible for this title tested how persuasive it is.

According to the project's website, "researchers from Stanford have run thousands of participants through this experience."[9] Their study found impressive results. As an article published by the university mentioned, "people who experienced *Becoming Homeless* were significantly more likely to agree with statements like 'Our society doesn't do enough to help homeless people.' They were also more likely to say that they cared very much about the plight of homeless people."[10] The researchers expressed the need for further investigation into the nuances of VR as a persuasive medium. Read why this new argumentation type matters.

The benefits of procedural rhetoric

Persuading through doing. This sentence describes the leading hook of this new argumentation type. But what advantages does it offer over traditional media? There are three:

1- Engagement and learning: You've learned that interactive experiences lead to higher engagement. Focusing more also leads to better memorization.[11] Therefore, people learn better if you teach them your arguments interactively.

2- Problem-solving: People are more likely to remember information if they use it to solve a problem.[12] Games are about finding solutions to issues; therefore, making an argument through this medium makes people more likely to remember it.

3- Connecting the dots: Allowing people to reach their conclusions is a piece of storytelling advice.[13] It's valid here. Interactive experiences allow people to interpret their findings as they play without the feeling that someone is teaching them through an essay or speech. This participatory nature makes their discoveries feel more personal, making them more believable. As a result, they'll be more likely to buy your argument.

This book focuses on games, but you can use procedural rhetoric in any interactive media. And you can use it in opinion journalism.

PROCEDURAL RHETORIC IN OPINION JOURNALISM

September 11th, 2001. The consequences of that fateful day were numerous, including the intensification of America's war on terror. This topic proved controversial, as it split people into two groups. Some individuals agreed with the USA's methods to end terrorism, while others disapproved of them. Gonzalo Frasca was in the latter. He's a researcher and video game designer from Montevideo,

Uruguay. At the time, Frasca had already published an essay titled *Ludology Meets Narratology*.[14] So, he was intimate with the argumentative potential of video games and created one to share his perspective on the situation: *September 12th*.[15]

Researchers claim this title was the first journalistic game ever as it shared an opinion on current events.[16] In it, you control an American bomber flying over a Middle Eastern city, as shown in the following picture (figure 1). Your objective is simple: bombard and kill as many terrorists as possible until you eliminate them. But it's easier said than done.

Your targets live in densely populated areas, so collateral damage is unavoidable. But you must continue your mission. Whenever you drop a bomb and neutralize an enemy, you injure or kill innocent bystanders. The survivors start hating the United States, becoming new terrorists. In short, for every enemy you kill, new ones appear. Winning is impossible, leading to Frasca's argument.
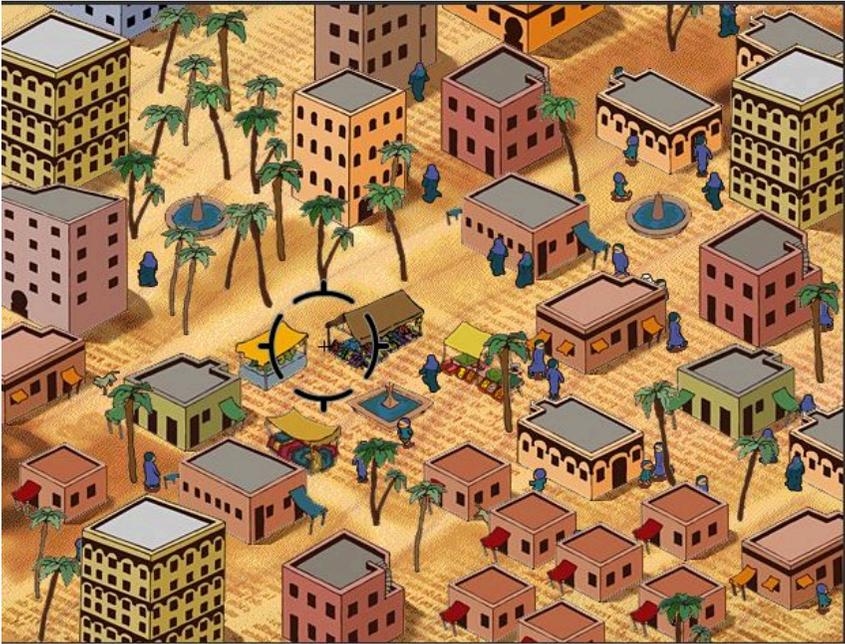
Figure 1. This game features simple graphics, helping you focus on its message. (Credit: Gonzalo Frasca)

The war on terror only raised tensions, worsening the situation. It created more terrorists instead of lowering their numbers. This argument is what Gonzalo Frasca wanted to communicate with his project. This book refrains from commenting on whether his assessment was correct. This topic could fill an entirely new manuscript. Instead, the goal here is to highlight that, through interactivity, *September 12th* provides you with an experience that, despite its simplicity, guides you through the author's perspective. It does so until you reach the intended conclusion, reaping the many benefits that interactive media can bring to opinion journalism. This chapter's interviewee, Wojciech Setlak, the lead writer at *11 bits studios*, commented on them.[17] He talked about video games, but what he said holds for all interactive content types.

"Games make it easier to reach minds and hearts due to their participatory and immersive nature," he said. "People no longer have to read for hours, straining their eyes and imagination, and they don't have to sit passively staring at the screen. They're part of the story," he added. This unique interactive media feature is a powerful argumentative weapon if you wield it well. "The participatory nature of games, when appropriately employed, allows the players to establish emotional connections in the game world much more quickly. You can use it to influence, convince, or teach something new," the writer commented. Considering these benefits, you should learn how to use procedural rhetoric in opinion journalism.

USING INTERACTIVE ARGUMENTS IN JOURNALISM

Video games are expensive. The best alternative is to develop a small title to avoid exhausting the financial resources of a journalism network. You can design a short experience like *September 12th* and pair it with other content pieces. For example, suppose you're a journalist working on a transmedia project about mental health. As part of this endeavor, you could write an argumentative essay arguing against the notion that people with these issues should "stop crying and get over it." You could pair your article with a short game, strengthening your argument. This approach can bolster your project's persuasiveness, although some individuals remain unconvinced of its effectiveness.

CRITICISM OF PROCEDURAL RHETORIC

Journalistic games have received academic attention in the past decade, with many authors arguing in their defense. However, some scholars remain skeptical of their effectiveness, claiming that gaming receives undeserved attention in this department. For example, Mike Treanor and Michael Mateas say many players praise specific titles

for "making an argument" through their interactions when this was never the developers' original intention. They believe people project meaning onto things to make sense of the world around them, despite the original author not sending a message.[18] And their second criticism stems from gamers' behavior.

What if they decide to ignore the game's instructions? This disobedience would destroy the author's argument.[19] Take *September 12th* as an example. You have to neutralize terrorists, but you're in control. Therefore, you can intentionally target innocent civilians, ruining Frasca's argument. This scenario is a problem. After all, even if you carefully design an experience, it's useless if gamers ignore its intentions and do whatever they wish. This possibility is a nightmare for designers. But there's a way to prevent it.

Think of game design as economics. For example, suppose you control a government and want companies to move to your country. In that case, you can offer incentives to encourage them to do so. Games follow the same principle. If you want players to adhere to the intended experience, you should compensate them. These compensations could come in myriad ways, like gameplay rewards or advancing the story if it interests people. Games are carefully designed incentive systems that take players through a path.

Did this explanation sound abstract? Fear not. The following pages will teach how a more intricate game than *September 12th* made a complex, persuasive argument. This information will empower you to design interactive argumentative experiences you can add to your transmedia journalism projects. Read on.

WELCOME TO 'THIS WAR OF MINE'

What if the life you knew ended in the blink of an eye? This prospect is undoubtedly terrifying. But, unfortunately, some people don't need to wonder about it. They're living it already. Millions of individuals worldwide find themselves stranded in warzones.[20] When food, water, and other essential resources become scarce, seeing the Sunrise again is an accomplishment. Witnessing the war's end is almost miraculous. These are the people who pay the highest price for wartime. But they seldom appear in video games. When they do, developers treat them as props in the background.

Most war video games are power fantasies. They're about welding powerful guns and massacring hundreds of enemies to save the world. This premise is the polar opposite of the suffering these conflicts inflict on the people unfortunate enough to be in the crossfire. Countless movies, books, and other productions have already addressed this subject. Still, it remains almost unexplored in the gaming industry. This neglect is a problem, but it also is an opportunity. A studio aiming to differentiate itself in this market could approach warfare differently by focusing on civilians instead of soldiers. A Polish company has done precisely this.

In 2014, *11 bit studios* released *This War of Mine.*[21] It's a survival game where you control a group of civilians trying to survive wartime. You aim to gather and manage resources to keep these people alive until a cease-fire. But it's easier said than done. Throughout the experience, you must make difficult decisions that will determine the fate of these individuals. For example, when you see soldiers assaulting an innocent girl, do you ignore her or risk your life to do what's right? This dilemma is one example of many in *This War of Mine,* as you'll soon learn. All these choices test your morals, culminating in this video game's anti-war argument.

Wojciech Setlak, the game's writer, gave an interview for this chapter to discuss how he and his colleagues designed *This War of Mine*. According to him, this game argues that civilians are the ones who pay the highest price for war. They sometimes must trade their humanity for survival. These emotional wounds often inflict more damage than any bullet could.

"We attempted to show the real face of war. It isn't pretty. To do this, we focused on the fate of civilians in wartime, and they're invariably the victims. Not the agents but the subjects," he said. With this premise, *This War of Mine* received critical acclaim, reaching an 83/100 score in the review aggregator *Metacritic*.[22] Most critics agree that this title is a prime example of how games can address serious subjects. But creating this experience was challenging, as Setlak detailed during his interview. In it, he explained how *11 bits studios* developed an argument through a video game, and it all started with dismissing a misconception many people have about this medium.

Video games don't need to be fun

In 1992, the Game Developers Conference hosted one of the most iconic speeches in this industry's history. When Chris Crawford was under the spotlight, he claimed that video games have a fantastic potential to become an unparalleled medium for artistic expression. But, he felt disenchanted. Game developers insisted that gaming is all about fun, lighthearted entertainment. Disheartened, Crawford announced his retirement upon concluding his presentation.[23] Almost three decades later, *This War of Mine* would put a smile on his face. It proves his point. Video games can be more than toys; this story has a valuable lesson.

Some of history's most prestigious works of art tell tales of betrayals and tragedies. You'd be hard-pressed to find anyone who believes these ideas are fun. Yet these stories became famous worldwide because they're interesting. They focus on what makes people human. With that in mind, think about *This War of Mine*. It addresses the emotional toll war takes on survivors, tackling various themes, including depression and suicide. These concepts, too, are undoubtedly unenjoyable. Yet, this title thrived, proving that video games don't need to be fun. Like other works of art, they must be interesting instead. So, as you read the following pages, forget archaic preconceptions of what games should be. With this statement out of the way, learn how *This War of Mine* makes an anti-war argument.

First step: research

Setlak mentioned the biggest inspirations 11 *bit studios* used: the Sarajevo siege of 1992 and the 1944 Warsaw uprising, but they also studied other conflicts. "We wanted *This War of Mine* to reflect the reality of wars by researching the stories of their victims," he said. The objective was to understand how people survive, what they feel during wartime, and how it influences their minds. "We had an extensive list of persistent themes and emotions in the reports we read. We then did a lot of underlining, bolding, and deleting before we arrived at a manageable list," he explained. After gathering this information, Setlak and his colleagues needed to determine the best way to make his argument through a video game.

Finding the right approach

Although most games have a story and at least one character, they're about things, not people. They make you work towards accumulating more points, acquiring better gear, etc. Reaching these goals is your metric for success. But, this approach would've been counterproduc-

tive for *11 bits studios*. To make an anti-war argument, *This War of Mine* needed to be about people, their mental state, and how war gradually breaks them down. So, the developers had to ensure that characters and their emotions would be the most crucial element in this game. Accomplishing this goal was challenging and required an unorthodox approach to video game design.

This title twists this industry's conventional wisdom. Usually, survival games are all about the supplies you gather. The number of resources you collect, and your effectiveness in managing them, determines if you win. These titles are about things. In *This War of Mine*, you also must scavenge for items and decide how to use them. But, it features a different metric for success: your characters' emotions. Throughout the game, they can get injured, depressed, and even suicidal. It's your job to manage resources to prevent these adverse outcomes. This change ensures the experience is about people. And whether they survive depends on your choices, which you can split into two categories: resource management and moral dilemmas when gathering supplies.

Moral decisions when getting supplies

It's time to go into more detail about how this game works. Once the war starts, it gives you a group of survivors to control. Every person has a background story and shares thoughts on what happens to them in the game. They also have strengths and weaknesses, as pictured in the following image (figure 2). For example, you could have a footballer who runs fast but is unskilled in combat. Likewise, you can have a fantastic cook. His dishes can boost morale, but he's physically average. Based on these individuals' characteristics, you must assign them tasks. Your goal is to choose the most qualified person for a job to maximize your group's odds of survival. Many vital activities must happen to keep the survivors alive.

Figure 2. This game features complex characters with several attributes. (Credits: 11 bit studios)

You can ask people to cook food, burn fuel to generate heat, treat wounds, rest, or do many other activities in your shelter. How well someone performs these tasks depends on that person's attributes. But, most of these actions require resources. For example, preparing meals consumes ingredients, generating heat burns fuel, and you must have medicine to manage injuries and illnesses. But these supplies are scarce. So you must choose someone to scavenge the devastated city to find more.

You control them to evade soldiers and scavenge for supplies or firearms. But, even if you master this endeavor, you'll never hold an abundance of resources that makes your group thrive. That'd be unrealistic and counterproductive to the game's argument. Even when you become proficient in this title, you only find enough items to survive barely. "Achieving this balance required plenty of proto-

typing, play testing, and tweaking," Setlak explained. And this point is vital to the argument *This War of Mine* conveys. The scarcity of supplies forces you to make moral decisions. And these put you in the middle of the horrors civilians face in wartime. Read an example.

While scavenging at night, you may meet other survivors. If you have a weapon, you can seize their belongings, dooming them to illness or starvation. "I'd never do that" was perhaps your reaction to the previous sentence. But suppose someone in your group desperately needs a specific medicine. These civilians have it. Now the choice has become significantly more complicated. Likewise, desperation can make other atrocities seem tempting. Suppose your group is starving. You could break into someone's home to rob their food. These two examples show how *This War of Mine* puts you in the middle of the decisions survivors must make during wartime, emphasizing its argument. But, this approach created a problem.

Players could start a bloodbath. With this situation in mind, *11 bit studios* asked themselves how to prevent it from happening. Psychology was their answer. "The psychological costs of actions survivors undertake at the player's command play a significant part in the gameplay's balance," Setlak explained. For example, if you ask characters to perform actions misaligned with their morals, they'll disapprove but never refuse. Instead, their mental health will suffer afterward. "It's relatively easy to get food and medicines by stealing and murder. But most, though not all, survivors forced to commit such acts would then suffer from depression. Finally, it'll worsen to complete breakdown, ending in suicide," Setlak explained. This approach added another dimension to this game.

Before asking a character to perform a nefarious action, it´s vital to consider whether it's worth the risk. In *This War of Mine*, group members lose productivity when struggling with their mental health. In extreme cases, you'll be unable to use that character, significantly lowering the survival odds of the others. This approach puts the personal toll of wartime in the spotlight, allowing *11 bit studios* to create a game about people, sending a message loud and clear. But this development team still went further. It implemented other moments that force you to make difficult decisions. These also impact the survivors' psychological well-being. Regardless of how you acquire your supplies, you must then decide what to do with them.

Resource management in 'This War of Mine'

You won't have enough for everyone. This premise puts you in the middle of inner conflicts survivors face, such as deciding who eats tonight or which sick person gets medicine. It's all a delicate balance, and there's no correct answer. For example, investing resources in mentally unwell people will aid their recovery. But, the individuals you choose to neglect will gradually become weaker and, therefore, less productive as their physical and mental health deteriorates. So you must trust your morality to invest resources wisely. You're right if you think this is enough to convince players that civilians pay the highest price for war. But *11 bit studios* still had one card left to play.

Raising tensions ever higher

Keeping players outside their comfort zones was vital for *This War of Mine* to reach its goal. If they got accustomed to the abovementioned difficult decisions, the game would stop landing its emotional punches. So, developers needed a way to escalate tensions continuously. With that in mind, the city gets more dangerous daily, forcing you to face new challenges. For example, winter arrives and increases

the necessity for food and heating. Or, you may return to your shelter and realize someone has stolen your supplies. As Setlak said, you can suffer from "pure back luck." These moments ensure that you'll always be on edge. You have no idea what happens next. But, with luck, it'll all be worth it.

LIFE AFTER WAR

The horror doesn't end once the white flag waves. The survivors who endured this devastation will forever carry it in their minds. Some individuals can't return to mundane life, as the trauma they experienced will hunt them to their graves. With that in mind, *This War of Mine* shows each character's post-war fate. Some will recover from their wounds, both physical and psychological. Others won't be as fortunate. Which scenario unfolds depends on your choices throughout the game. Each reinforces its argument. However, as Setlak explains, ensuring they formed a coherent experience took time and effort.

ENSURING COHESION

With so many variables, *11 bit studios* needed to ensure that all elements remained coherent with the proposed themes. To do this, Setlak and his colleagues used the real war stories they had researched. Do you remember the list of inspirations he mentioned a few pages ago? Well, it came in handy here. They consulted this document to check if new ideas adhered to the themes they wanted to address. "We checked all the stories in the game against this list, and there were some proposed narratives that we didn't develop because they didn't fit the design," he said. This way, *11 bits studios* ensured all the choices strengthened the game's argument. But all this effort would've been fruitless if this team had failed to follow a simple storytelling rule. You certainly know it.

Show, don't tell

When making this game's argument, it would've been easy for its team to write dialogue or overlay texts that tell you about how war brutalizes civilians. But Setlak believes that this approach is inadvisable. "We don't write about how the war breaks people. Instead, we make the characters in our game suffer the consequences of the player's choices," he explained.

This War of Mine lets people experience it and reach conclusions for themselves. This *modus operandi* allowed *11 bit studios* to create a more personal and engaging experience millions of players worldwide enjoyed. Even the Polish government noticed how effectively *This War of Mine* communicated an antiwar message and decided it could benefit the nation's youth.

Reading the future

Poland announced in 2020 that it'd include *This War of Mine* in the reading list of public schools nationwide.[24] The country's Prime Minister, Mateusz Morawiecki, commented on the topic in a public statement. "Poland will be the first country in the world that puts its own computer game into the education ministry's reading list."[25] The objective is to teach young minds that war's devastating consequences go beyond military causalities and material damages.[26] Poland aims to educate youngsters about the horrors of warfare, hoping to discourage future support for this conflict type.

Grzegorz Miechowski, CEO of *11 bit studios*, also shared a public statement. "Of course, games are already being used in education to teach mathematics and chemistry and develop cognitive abilities. But I don't think we've ever encountered a game being officially included in the educational system on a national level as a school reading," he

said.[27] This induction endorses a vital perspective. As Setlak commented in his interview, "Games are a form of artistic expression like any other, or perhaps *unlike* any other. There are no subjects video games are unfit to take on." This statement is a green light for journalists like you to use games and procedural rhetoric in journalism. As such, the following pages will show how the techniques described here would've made the world's first journalistic game even better.

What 'September 12th' could learn from 'This War of Mine'

You may think very little from *This War of Mine* could carry over to *September 12th* since the latter is a simple game. Its simplicity is a limitation, but you can use what you've learned to improve it while staying within the original project's scope. But first, there must be a definition for "making it better." The project's argument focuses on a specific emotion: hatred. Civilians who suffer from the collateral damage of American attacks start to hate this country, becoming new terrorists. You can use what you learned from *This War of Mine* to emphasize this feeling even more. It all begins with the human face.

There's a reason why *This War of Mine* focuses so much on showing the survivors' faces. Eye contact helps to establish empathy between individuals.[28] Considering this fact, you can spot a significant missed opportunity on *September 12th*. You only see characters from afar, precluding you from seeing any detail in their facial features and making eye contact. Although this situation doesn't prevent fostering empathy towards the people on screen, it hinders it. Therefore, to boost Frasca's project's effectiveness in making an anti-war argument, you must consider how he could've made players see the civilians' faces. Here's how he could've done this.

Imagine the game playing out as follows. When you bombard a village, causing collateral damage, the victim's picture appears on the screen, with a short text in which they share thoughts that align with the argument *September 12th* makes. The person shown could be an actor or just a hand-drawn individual. Either would work. For ethical reasons, the game must disclose that the character is fictional, even if based on facts. With this approach, it would've been easier to empathize with the characters on the screen, thus strengthening the game's argument. But you can still take this creative exercise further to boost this title's emotional punch. To do so, think of contrast.

September 12th could've started introducing you to an Iraqi citizen. This moment could happen through a picture and a short text about this individual. It could share a background story that leads you to empathize with this person. It could also inform you that they live in a village where many terrorists dwell. When the game prompts you to eliminate these foes, you connect the two dots and try to protect this character. After a few bombardments, a message appears on the screen. You've wounded the person from the beginning of the game. Now, this character swears revenge against the United States. This approach shows how your actions turned this innocent person into a terrorist. This contrast makes it more emotional.

The suggestions above only transformed *September 12th* partially. Its gameplay loop remains unaltered. But, as developers continue pushing video games' boundaries as an expressive medium, it's essential to look back on past titles. You must learn from what developers could've done better if they had today's knowledge. After all, creating argumentative games can be a challenging task. *September 12th* and *This War of Mine* received praise, but not all projects of this nature were as fortunate. A team tried something similar, but their attempt ended in bankruptcy, and careers burnt to ashes.

The plight of 'Six Days in Fallujah'

This War of Mine is the best example of a title that strays from the notion that video games must be fun, as it argues about severe issues from the real world. But, it wasn't the first major commercial project to have this vision. In 2009, *Atomic Games* announced *Six Days in Fallujah*,[29] a military shooter set in Iraq. This description may sound unremarkable, as titles of similar premises flooded the market around that time. But, this project had one difference: it aimed to recreate 2004's second battle of Fallujah accurately. The inspiration came from U.S. Marines who participated in the conflict and asked to have a game made from it. *Atomic Games* liked the concept and started working to bring it to life.[30] They had one goal.

The game wanted to make you understand how soldiers feel in combat, which is certainly not fun. It tried to argue that war is frightening and emotionally taxing, scaring someone's psyche for life.[31] During an interview with *GamePro*, the project's director, Juan Benito, said, "through our interviews with all of the Marines, we discovered that there was an emotional, psychological arc to the Battle of Fallujah."[32] He wanted players to have a glimpse of it. To do so, he designed an experience akin to survival horror. It received such a label due to warfare's nature.

"Many of the insurgents had no intention of leaving the city alive. Their mission might be to lie at a doorway for days, just waiting for a Marine to pop his head inside. This reality, of course, rattled the Marines psychologically," Benito explained to *GamePro*.[33] According to the publication, the priority was giving players a taste of the horror and fear that Marines experience. "These are scary places, with scary things happening inside of them. In the game, you're plunging into

the unknown, navigating through darkened interiors and 'surprises' left by the insurgency," Benito concluded.[34] With a unique premise and support from the Marines, this game seemed poised to get much attention. It did, but for the wrong reason.

Once *Atomic Games* announced its project, controversy ensued. Many people criticized it, claiming that it addressed an inappropriate topic. Critics had two arguments to support their view. First, the Iraq war was still a recent occurrence. Many families were still mourning the loss of their loved ones on the battleground. So, they believed working on a digital recreation of these events was insensitive.[35] Secondly, people claimed that addressing this subject in a video game would disrespect fallen soldiers. These individuals perceived this medium as a mere toy. They disapproved vehemently of gamers having fun at the expense of American troops who took the ultimate sacrifice to protect their country.[36]

Even when *Atomic Games* tried to explain its intentions, critics didn't understand them. These individuals couldn't see how such a project could exist without trivializing its source material and disrespecting the Marines killed in action. But, despite the negative press surrounding *Six Days in Fallujah*, its creators continued development. They hoped it would all pay off in the end.[37] But, just as in war, sheer determination sometimes is insufficient to pierce through the enemy lines. They wanted to tell a real story. But unfortunately, the good guys don't always win in the real world. They became intimate with this harsh reality when a decision made in Japan killed their project.

Konami, the game's funding source, abandoned the project, deeming the controversy detrimental to its brand.[38] With this decision, *Atomic Games* needed a replacement, as money was quickly running out.[39] Rumors suggest Sony once considered publishing the game but decided against it.[40] With no funds, layoffs were inevitable. The

team started shrinking until only a skeleton crew remained.[41] It vanished too. In 2011, *Atomic Games* closed its doors.[42] A year later, its former President, Peter Tamte, said that the project's assets were still intact, and he aimed to finish it one day.[43] A decade later, his persistence paid off.

In February 2021, Tamte's new company, *Victura*, decided to finish the project. It contracted the *Highwire* studio to continue development.[44] These companies estimated that the game would hit store shelves still in 2021.[44] But, after several delays, they announced a 2022 release date without mentioning a specific day, month, or quarter.[45] Finally, in October 2022, *Victura* stated that it needed to delay the launch to 2023, arguing that it needed more personnel to fulfill the game's vision.[46] But even if this game reaches store shelves, it'll only reach its argumentative goal if it alters its creative vision.

What 'Six Days in Fallujah' could've learned from 'This War of Mine'

It's difficult to comment on an unreleased project. Such analysis relies solely on developer interviews, screenshots, and videos. However, analyzing these sources reveals a significant red flag in *Atomic Games'* project. When developing a video game that makes a specific argument, you must ensure it'll be the title's most important aspect. *This War of Mine* did this masterfully by making the survivors' emotions and well-being the experience's most critical element. Unfortunately, the publicly available information on *Six Days in Fallujah* indicates that this game would've failed to accomplish the same.

It's a realistic depiction of warfare in Iraq. But, the central element of *Six Days in Fallujah* is "you have a gun, and you need to neutralize targets." Your metric for success is whether you're the last man standing. The game never ties the soldier's emotions to its primary

objective. Instead, it does what Setlak argues a game should avoid. It plays interviews with actual combatants between missions. These would inform players of the Marines' psychological and moral dilemmas. So, this project tells you about them instead of using video games' interactive nature to let you experience these emotions for yourself. This approach is suboptimal but the easiest way out. After all, being subtle and using interactivity to make an argument can be difficult, as Setlak commented:

> *"The challenge of creating a meaningful experience that will work in different contexts dependent on player's choices, of providing work which will supplement other forms of player interaction without vying for supremacy, of painting with words only what can't be better pictured with graphics, of explaining only what can't be better shown with examples, and of shaping the narration while leaving some control – often a lot – to the player."* – **Wojciech Setlak**

The argument this title aimed to make seemed like an afterthought. But it didn't have to be this way. Imagine if the game played as follows. You could control a character in charge of a squad. Your goal is to ensure its survival. But the game throws difficult decisions your way. Do you shoot a civilian who looks like he's armed? Do you break into a home where an enemy might be hiding? The characters following you would execute your orders, but they'd internalize their actions. Depending on your choices, they could struggle with their wrongdoings. This mental handicap would make them slower in combat, complicating their survival. If they die, your mission fails, and you must restart. This *modus operandi* would've been more effective in communicating the game's argument.

This approach intertwines your choices and objectives with the soldiers' emotions, putting them in the spotlight. But unfortunately, *Atomic Games* focused so much on replicating the tactical dilemmas soldiers face that it put little thought into how to portray the emotional harm that combat can inflict. This misguidance is why *Six Days in Fallujah* will fail to achieve its goal without a creative revision if it ever hits store shelves. To ensure you'll avoid facing the same fate, read below a list of techniques described in this chapter. These will help you design interactive content that uses procedural rhetoric to make you a better opinion journalist.

Insights to help you use procedural rhetoric
1. Video games can address any topic.
2. Games don't need to be fun.
3. Research, research, and research.
4. Make a game about people, not things.
5. Intertwine your game's goals with its argument.
6. Use faces to convey emotional information.
7. Force players to make decisions related to your argument.
8. Be ethical.

This last element is critical. Considering the information you've learned, video games are a viable argumentation platform. But you must recall the previous chapter's disclaimer. Creating an experience to shift someone's perspective can be manipulative. Therefore, any use of procedural rhetoric in journalism must come with a warning. It must inform players that they're playing through your interpretation of reality. They are *not* playing a 1:1 recreation of how the real world works.

FINAL THOUGHTS

September 12th and *Six Days in Fallujah* deserve praise, even if the latter is yet to reach players. They rejected the notion that video games are mere toys and used them as a platform to address serious topics. Although you've read suggestions on how these titles could've been better, you can't diminish their artistic merits. Combining the lessons from their successes and failings with what *This War of Mine* can teach gives you an understanding of how to use procedural rhetoric to take opinion journalism to new heights. After all, humans will forever continue refining their communication skills, and actions speak louder than words. This fact describes the beauty of procedural rhetoric. You now know how to get started.

9

'THE WALKING DEAD' TEACHES YOU ABOUT BRANCHING NARRATIVES

Stories have a special place in your heart. Recall your favorite narratives. In doing so, you may think about films, books, television shows, or other mediums. But, regardless of the media type that crosses your mind, they all share many similarities. After all, humans have been refining their storytelling skills for millennia. As a result, there's now a solid understanding of how to share tales that move people and stick with them for decades, sometimes even a lifetime. But video games offer a new frontier for this ancient art form. They're interactive experiences that allow you to control the protagonist. But, despite such an innovation, they often borrow concepts from other media.

Some games take heavy inspiration from films, creating experiences akin to an interactive movie. You follow a character and decide what they must do in critical moments. Each decision leads you to a different path in the narrative. In the following chapter, you'll read about one such title: *1979 Revolution: Black Friday*.[1] It's a documentary game about Iran's revolutionary movement. In it, you follow a man, making decisions that influence the plot. This description may have raised a red flag in your mind. Giving players the possibility of changing a story may seem at odds with a journalist's duty of reporting the truth in a documentary. But, it's possible to create an interactive narrative that stays truthful to the events it portrays. How so?

You'll find the answer to this question in the following chapter instead of in this one. You must learn the basics of writing interactive stories before using them in journalism. Therefore, the current passage will analyze a title many critics regard as a prime interactive storytelling example. This chapter dissects the first season of *The Walking Dead: a Telltale Game Series*.[2] You'll learn how it builds an interactive story. Then, in the following chapter, you'll read an entire passage on using these concepts in journalism. You probably know the television show. Now, get acquainted with the game.

WELCOME TO THE APOCALYPSE

What would you do if society was no more? What would you do if society was no more? This question may have crossed your mind when daydreaming, and *The Walking Dead* answers it. Developed by *Telltale* and released in 2012, it makes you follow Lee Everett, a man on his way to prison, sentenced for murder. The following pages will refer to "Lee" as "you."

The story opens with you inside a police cruiser en route to your next home for life. But, the trip cuts short when your car runs over someone on the road and crashes. Next, the screen fades to black. Upon awakening, you realize the situation's severity. The man you ran over was dead before the accident. He's one of many more. Zombies now rule the world. What follows is the fight for survival. But you're not alone in this nightmare.

You stumble through a suburban neighborhood, trying to make sense of your situation. Finally, a house invites you in, and you walk inside it. The dread in the air smothers you until someone speaks through a walkie-talkie nearby. It's a little girl. She's observing you from a treehouse in the backyard. Her name is Clementine, and her parents left their home shortly before the apocalypse commenced. They're yet to return, and their whereabouts are unknown. Aiming to protect the defenseless child from the horde of merciless zombies, you invite her to follow you. Now, it's up to you to navigate what little remains of society, find safety, and protect Clementine. But it's easier said than done. Your concerns go beyond evading the undead.

You find other survivors. But laws are no more, and so are most people's morals. Survival of the fittest is the principle most individuals follow now, but not all. You soon find a group of friendly survivors to join, and you must choose how to interact with them, whom to trust, and which side to take in morally gray situations. These decisions will determine your fate, as well as Clementine's. And this is just scratching the surface. All these choices change the story, allowing you to create a personalized journey. After the world's end, will you stay a man or turn into an animal instead?

With this premise, *The Walking Dead* stormed the gaming world in 2012, becoming an instant hit when its first episode launched. It continued to impress throughout its remaining four. It holds an 89/100 score on the review aggregator Metacritic.[3] This positive reception resulted in awards also pouring in. The game won "Game of the Year" in the 2012 Video Game Awards.[4] It also won "Best Story" at the 2012 BAFTA Video Game Awards.[5] These are two examples of the plethora of accolades this title received. There were many reasons for this appraisal, but in this chapter, you'll learn how the game crafted an interactive story through its branching narrative.

A branching narrative consists of presenting you with choices to make. These take you to a unique plot path, leading to more conflicts and decisions.[6] Once drawn, all these alternatives create an image that resembles tree branches, as the following image shows (figure 1), hence the name. With this approach, *The Walking Dead* offers an interactive tale that allows you to interact with the other survivors in your group, shaping your relationships with them. The following pages dissect how the game does this, so you can learn how to craft a story in this style. In the following chapter, you'll learn how to use these concepts to create an interactive documentary. This analysis features insights from an exclusive interview with the writer of the game's second episode: Mark Darin.[7] Start with the basics.
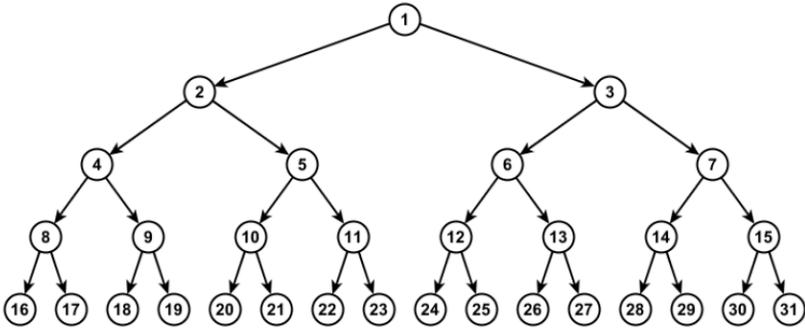
Figure 1. Branching narratives are a way to create interactive stories. (Credit: The Story Element)

WHAT TO AVOID

Before you learn about interactive storytelling from *The Walking Dead*, avoiding one misconception is crucial. Creating a compelling experience in this format goes beyond giving the audience as many choices as possible. As Darin said, "It's about giving players choices that matter to them. Choices that shape their character and the relationships they have." Like any form of storytelling, it's about creating something that the audience finds meaningful. Otherwise, it's a toy. You interact with it, but it doesn't engage you emotionally. As it turns out, this sentence describes a mistake *Netflix* made.

Mark Darin mentioned how *Black Mirror: Bandersnatch*[8] fell into the pitfall mentioned in the previous paragraph. "It was fun to experiment with it and see where it'd go. But at the same time, I never got invested in the story because the different paths you could take didn't become cohesive," the writer said. Then, adding to his thoughts, he explained that "it's a sandbox, a toy. It was unsuccessful

because it didn't know what it was trying to say about itself," he concluded. And this chapter is about how to avoid this situation. In the following pages, you'll read the lessons you can take from *The Walking Dead* on creating an emotional interactive story.

Discovering the themes of 'The Walking Dead'

Plan before you execute. According to Mark Darin, you must understand the story's theme before planning its choices. "It's all about knowing what kinds of choices to write so that your story and branches don't get away from you, but instead all compound to support your central theme," he said. For example, "*The Walking Dead* was always a redemption story. Lee had made choices that led to him becoming a murderer. When the world changed, it gave him a chance to begin anew, which was the theme," the writer added. He said this motif made players more empathetic towards Lee, bolstering the game's appeal, even if this idea may sound counterintuitive.

Murdering someone is an experience that most people will never face. Based on this improbability, it may seem like Lee's past would distance him from players. But, this assumption is incorrect, according to Mark Darin. Yes, the gamer wielding the controller has probably never wielded a weapon with its barrel pointed at another human. But everyone has deep regrets. They connect you to Lee. "You want to be a better person, and everybody can relate to that. It's a fairly neutral and universal place," the writer explained. Therefore, the team started planning a story and its choices around the idea of a man looking for redemption. Whether he finds it is up to you.

Planning the story of 'The Walking Dead'

When you outline your interactive narrative, you may feel the urge to write one complete story and then add choices leading to variations. But Mark Darin advises against this approach. He suggests the opposite. "You must consider the choices early, long before writing the script. You don't need to have all the choices figured out, but you have to deeply understand the foundation that your story will ultimately be about the choices we make," the writer said. And this is why figuring out the theme before anything else is vital. "Your choices, and story branches, become much easier to write because you already know what you're writing towards," he added. This process allowed the team to start having ideas, which gave birth to a young, scared girl.

Clementine is a character in this game. She's an example of an idea that emerged from the process described in the previous paragraph. "This is a little girl you want to protect, but this child is more than that. She's the lens through which you see yourself. She never judges you. She learns. And observing who she becomes keeps you in check as you make choices," Mark Darin said. Having Clementine with you, therefore, is vital for the experience. After all, you follow a man seeking redemption. "The player's responsibility in the story is to determine who Lee becomes as he goes through a series of morally ambiguous choices," Darin explained. Clementine observes your actions, learning and changing based on them. She's a mirror.

The goal was to make you think and reflect on your decisions. For example, suppose you take a ruthless approach to survive the apocalypse. Clementine will observe you. She'll learn from you. You'll see her innocence fade away as she internalizes your actions. Do you deserve redemption? You may have survived. But at what cost? These

are hard questions you'll have to ask yourself if you aim for a brutal approach to the apocalypse. And this sits at the heart of what Mark Darin aimed to achieve with *The Walking Dead*. After all, Clementine learns through your decisions, and so do you.

Learning through your decision-making

This process happens in *The Walking Dead*. As Mark Darin said, "the most interesting thing an interactive story can do is present opposing ideas and put the player in the middle. The best version of this is when there's no obvious right answer. You have to ask yourself some tough questions." As these questions go through your mind, you start thinking about your morals. When done correctly, these moments can lead you to a deep reflection about yourself. But the keywords here are "when done correctly." It's easy to get it wrong. So, read Mark Darin's advice on creating morally ambiguous choices to make your audience reflect on themselves.

Creating difficult choices

Your goal is to design conflicts that make people think before choosing. A choice with an obvious best outcome is pointless. With that said, Mark Darin offers some guidance on this subject. "A choice is most interesting when there's no right/wrong answer and when it has a personal emotional impact. One of the least interesting choices is whether to do something or not," the writer said. His words offer a starting point. But now that you've learned the theory, it's time to get practical. See examples from *The Walking Dead* to better understand how its team designed morally ambiguous conflicts.
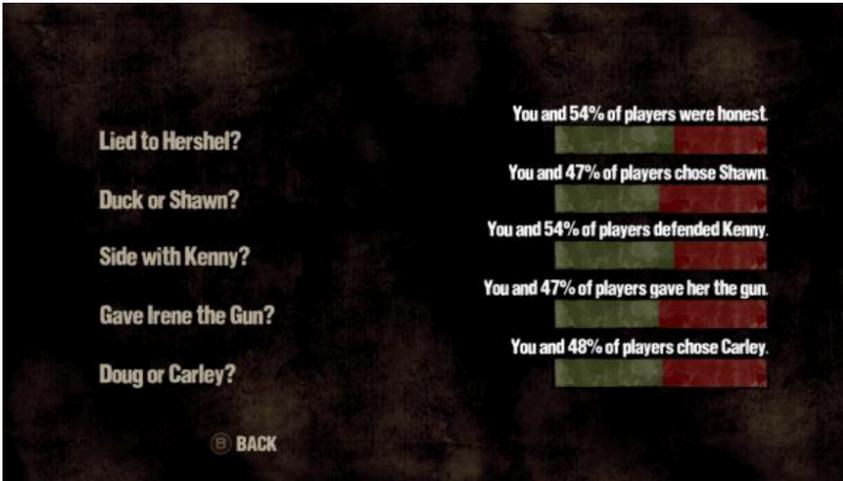
Figure 2. Most choices in this game had an almost perfect 50/50 split. (Credit: Telltale Games)

The previous image (figure 2) shows the screen that appears when you finish the game's first episode. It features your most meaningful choices, comparing them to other players. Focus on "Doug or Carley?" It refers to when your group finds itself inside a restaurant surrounded by zombies. All hell breaks loose when they start storming inside. Holding your position, you must find a way to drive the horde away. But, a considerable dilemma appears. Zombies have pinned down two members of your group: Doug and Carley. They're defenseless, and there's no time to help both. You must decide who lives; this choice has more to it than meets the eye.

Doug and Carley are distinct characters with different backgrounds, skills, morals, and personalities. Above all, they have strengths and weaknesses that make them human. When the game prompts you to choose only one to survive, you must consider all these factors, revealing what is *really* happening. The game is asking you a question. Which of these personalities and morals do you value the most?

Answering can lead you to know more about yourself. This scenario is a masterful example of a morally gray choice with no objectively right or wrong answer. It's up to you to decide, and this dilemma was excruciating for most players, as the previous image shows.

48% of players chose to save Carley. This figure is almost a perfect split between those who opted to rescue Doug instead. The nearly 50/50 divide shows this was a difficult decision with no correct answer. And you see the same pattern in the other choices featured on the screen. All of them divided the audience, showing their moral ambiguity. Additionally, choosing is unavoidable.

"Make sure that the situation dictates that players commit to doing something, either because there's no narrative alternative or because the course of action fully aligns with their character's motivation," Mark Darin said. However, even with such dilemmas, the writer decided to keep increasing tensions.

ADDING FUEL TO A FIRE

The Walking Dead uses two techniques to make your dilemmas even more difficult. The first is time. When the game prompts you to choose, the world around you continues moving, and your window of opportunity to act is narrow. Sometimes, you only have a few seconds to determine what to do. This design captures a more genuine response from you, as lingering on a choice is impossible. So, *The Walking Dead* features plenty of moments wherein everything around you becomes chaos. You must determine the outcome. Making matters worse, you must live with your decisions throughout the story. There's no going back.

Considering how little time you have to choose, it's easy for decisions to backfire. In these cases, a rewind button is something you'd love to have. But such a feature is something that *The Walking Dead* keeps from you. "We wanted this game to be about your choices and how they affect people in the world around you. And you can't just take back those choices," Mark Darin said. But, although this approach heightened the drama, it also raised a problem. It could frustrate players who regret their decisions.

To circumvent this issue, *The Walking Dead* puts you in situations where you'll stand by your decisions. "You're going to make a choice. But if it has a bad outcome, we want you to say, 'I'd have made that choice again. Bad things happened, but I believe in my choice," the writer said. In short, you want to create a situation that makes players think: "with the knowledge I had at the time, I made the best judgment." An excellent way to accomplish this result is by crafting choices based on morality. People tend to stand by their moral values, even if the outcome is undesirable. After all, keep one thing in mind. Even if one choice had a bad result, the alternative could've been worse. But something always happens, good or bad, leading you to another lesson.

The game must always say "yes"

One challenging aspect of transitioning from traditional to interactive storytelling is getting comfortable with giving up on some control over the narrative. This prospect is the worst nightmare for some writers, as they fail to fathom the concept of not continually directing the audience. If you're like this and have landed an opportunity to work on a branching narrative, you may feel the urge to infuse your game with the *illusion* of choice. You may craft moments

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in which players must choose, but the outcome is always the same, regardless of their decision. This way, you satisfy your need to always be in control, which is understandable but also inadvisable, according to Mark Darin.

"No matter what choice you give your players, ensure that the game never says 'no' to it. If the game tells you that you can't do a thing, even though it just offered it, remove that choice. It isn't one," the writer said. The biggest problem is the contrast between expectations versus reality. You're selling your players an experience where their decisions matter. If they realize that you only offer the illusion of choice instead of actual decisions, the contract between gamers and yourself becomes null. If you lose your audience, you lose everything. So, think carefully before implementing a choice. Having this concept in mind is paramount, as *The Walking Dead* lets you do more than choose what to do. You can also decide what to say.

THE POWER OF WORDS

Choices can go beyond choosing what to do. Sometimes, deciding the right things to say can be equally as complex, and dealing with the repercussions can be even more challenging. Sticking to the theme of presenting morally gray decisions, *The Walking Dead* also allows you to have conversations with other characters. You approach someone, and four dialogue options appear on the screen. You can only choose one, and that character will respond accordingly, leading to new possibilities. The cycle continues until the chat ends. They all remember what you say and how you treat them, allowing you to shape these relationships. The game does this through a concept called "dialogue trees."

These interactive conversations are similar to branching narratives. The game presents you with a set of possibilities, and you choose, as the following image shows (figure 3), leading to a unique path.[9] And another thing they have in common is that using them to create a meaningful experience goes beyond giving players many alternatives. You must create interactive dialogues that are emotionally significant to the audience. Remember what Mark Darin said, "it's not about giving players as much choice as possible; it's about giving them choices that matter to them." So, the writer explained his approach to writing dialogue trees.
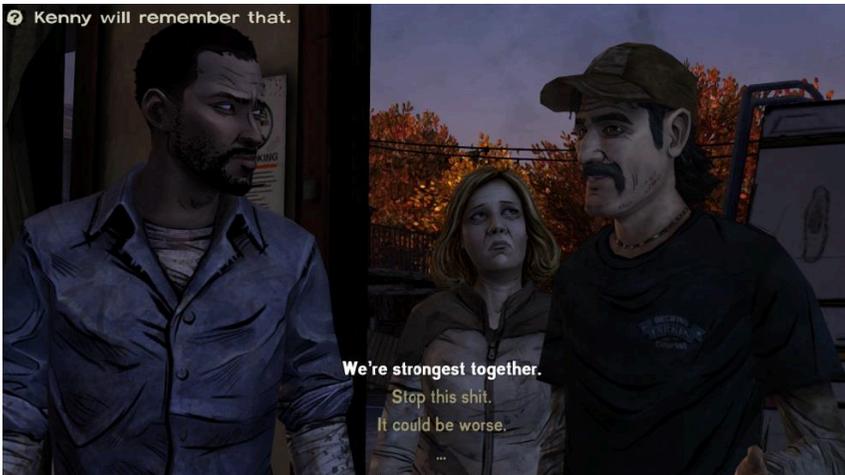
Figure 3. Characters in this game remember what you tell them. (Credit: Telltale Games)

The first thing you need to know is why you're writing. In this regard, interactive dialogue is similar to its passive counterpart. In both cases, you must ensure that the words exchanged say something relevant. In a game like *The Walking Dead*, the difference is that you can choose where you want the conversation to go. But all options must say something of narrative importance. Mark Darin compares them to exploring an uncharted land. "Without having a set linear path,

the player is encouraged to explore, but instead of exploring landscapes, they're exploring ideas and relationships," the writer said. And this process allows you to create dialogue options that'll make players reflect on their words' morality. Here's why.

Acting is reacting. The same principle holds here, but for a different reason than you may imagine. Remember one thing: interactive storytelling's most significant creative opportunity is giving the audience a learning experience about themselves. Likewise, how characters react to your words can teach you much about yourself. "Characters are best when they internalize how you treat them as opposed to responding outwardly," said Darin. He followed his argument with an example. "There were a lot of instances where I'd allow Lee to say something that Kenny wouldn't like. Kenny would then internalize what you say and start to see himself differently, instead of seeing *you* differently," he explained.

This approach is similar to how the game uses Clementine. It allows you to see the impact of your words from an outsider's perspective, giving you a more objective judgment of how they impact other people and creating a more dramatic and meaningful experience. This result is possible because *The Walking Dead* strayed from the obvious path. "The obvious play is to make Kenny hate Lee, but this is problematic. Either you, as a player, don't care, or you start focusing on how to win Kenny back, which isn't the story's point. It's a subtle difference, but it changes how the player approaches the interactions with characters." he explained. And, to create meaningful conversations, you can still take things further.

Wordplay: Turning conversation into games

Chapter three discussed how designing an activity with a game-like approach can make it more interesting. You can do the same with interactive dialogues. Mark Darin pointed out that you can turn them into mini-games. To do that, frame the situation in a way that gives players an objective for that conversation. These goals can be about uncovering a piece of information or persuading someone to do something. And, as in any game, you need to have a challenge. For example, the person you're talking with is unwilling to reveal the information you seek, so you must persuade them to open up. Or you may find yourself in the crossfire of two opposing parties, and you have to stand against one while not upsetting the other, as the following example shows.

The game's second episode begins with a significant choice. You're walking in the woods, trying to find food for your group, until a cold scream echoes through the forest. You sprint to find whoever is in danger and find three men. One of them had his leg dilacerated in a bear trap. The man's cry for help attracts zombies. They're converging quickly on your location. You must choose. Do you stay and help him or run for your life? If you decide to rescue him, you'll quickly have a sobering realization. The release mechanism is missing. The only way to free him is to amputate his limb. And your biggest problem is yet to come.

After you amputate the man's limb, you take him to your group. They're camping in an abandoned inn. With food running low, you face strong opposition from another character: Lilly. She's against spreading resources even thinner by bringing more people into the camp. At this moment, you can choose what to tell her. No matter your argument, you can't convince her you're right. But Kenny is

listening to the altercation. He'll remember what you say. If you've developed a liking for him and wish to stay on his good side, you must choose the right words to stand your ground against Lilly while keeping your relationship intact.

The example above is one of many others. They test your skills to maneuver through conflicts while maintaining your reputation and nourishing the relationships you value. Over the story's arc, these moments come together to create a game. And it's easy to make a mistake. As Mark Darin said, the characters won't hate you for it but will gradually change. You may dislike this transformation as you start despising the people you once cherished. This concept sounds great from a storytelling perspective. But not all is perfect. Although interactive narratives can lead to dramatic moments, they can also jeopardize one drama rule.

Pacing problems

Storytelling is like boxing. A well-timed sequence of hits devastates the receiving party. Therefore, when writing a story, it's vital to plan exactly when to deliver information and when events happen. The goal is to maximize their emotional punch. Unfortunately, this principle creates a problem for a game like *The Walking Dead*. The reason is simple: players can choose how long they'll take before deciding. Yes, the game gives you a limited timeframe, but you still have some agency on the experience's pacing. After all, even if you only have five seconds to decide, you can choose something immediately or wait until the time is almost up. This consequence is most notorious when the game lets you freely walk around to explore an environment. You can stay there for as long as you want, allowing you to destroy the pacing. The inn mentioned above is an example.

This location exemplifies how interactivity can ruin pacing, deflating tension. Not because of what it is but because of what it could've been. Read that area's original plan and the problem it caused. After arguing with Lilly, the game would give you your next objective. You'd have to chat briefly with your group to learn what they were doing in your absence. "This is where the pacing slowed to a crawl. 'Checking in' was misaligned with the theme of the episode, hunger, and the player wasn't responsible for achieving anything through this action," Mark Darin said. He explained how he fixed this issue.

Mark Darin decided to increase this situation's stakes. He did so by focusing on giving players difficult decisions and ensuring this segment aligns with the hunger theme. Lilly is a critical character who enabled these changes to happen. After you confront her, she puts you in charge of distributing food, but there's a problem. The rations are insufficient for the group. You must choose who eats. "Now, we have a motivation that ties to the story's themes. And the player now makes decisions that have stakes," Darin said. Ultimately, you're still walking and talking to people, but what could've been a pacing-killer became a tense situation due to your choices. You may wonder where they'll lead.

"We swim in different oceans but land on the same shore"

The Walking Dead is a title you should experience yourself. This chapter has avoided sharing significant spoilers, which is why it has only featured examples from early in the story. But, this approach is unfeasible for the following pages. It's time to discuss how the game

ends and the controversy that may arise in your mind because of how it does so. After dozens of moral decisions, hundreds of dialogue choices, and countless memorable moments, *The Walking Dead* climaxed in its fifth and last episode. Lee's biggest fears happened.

Someone kidnapped Clementine. As you desperately try to find her, you start searching a pile of junk, which turns out to be your demise. A zombie is hiding underneath it and bites your arm. It's a matter of time until the zombification process ends with you joining the undead army. But you still have one goal: rescuing your young companion with the bit of time you have left. You may wonder what you could've done differently to avoid this scenario. But this effort is futile. No matter what you choose, you can't save Lee. But, in your dying moments, you can save Clementine. You succeed. But, the end draws near. As your life fades away, you still have one final choice.

Your perspective shifts. You start controlling Clementine, as shown in the following picture (figure 4). Do you let Lee become a zombie or put him out of his misery? Either way, there's no positive outcome. He'll die. This ending is bold, considering that this game allows your choices to tailor the narrative. During his interview, Mark Darin discussed whether players could feel "cheated." After all, *The Walking Dead* is a game about choices. But, in the end, its most important character had none. Ultimately, all story branches converge into one point: Lee's death. But, the writer is confident that he and his team made the right decision.

Figure 4. An image is worth a thousand words. (Credit: Telltale Games)

"That was never a consideration," Mark Darin answered when asked whether the team had plans for alternative endings where Lee survives. According to him, the developers wanted to tell a specific story about Lee's redemption. Therefore, they found it appropriate to end the narrative with his death. Reading this paragraph, you can think that perhaps there were better ways for this man to redeem himself. But, if that's what you're thinking, think again. Remember that Clementine followed Lee for most of his journey.

Clementine witnessed Lee's struggles, fights, and choices. He's her savior, the person she looks up to the most. And as a child, she's still developing her personality and morality. Her experience with this man undoubtedly shapes who she'll become. If you made him take the righteous path, she'd replicate that. The game starts with Lee going to jail for taking a life. It ends with him granting someone else a new one. His arc came full circle. He redeemed himself. This story is the one *The Walking Dead* wanted to tell. Each player swims in a different ocean but lands on the same shore.

"Even if the ending location is the same every time, the journey can change drastically. And it's in that journey where we can learn the most about ourselves," Mark Darin said. "We wanted you to have your journey through the game and your choices to affect your relationships. In turn, you see how that changes the characters around you," he added. According to him, having a specific event to reach makes it easier for writers to create a meaningful quest. In the end, it seems like a parallel to how real-life works. Everyone comes from a womb and will be six feet under one day. The differentiator is what happens between these two points. But Mark Darin also explained that different projects could have distinct approaches.

"It changes for some titles," the writer said. According to him, you must always consider your project's goal. Based on that, you must determine if having multiple endings makes sense. For instance, *Fallout: New Vegas*[10] is a game about how your actions influence the world around you as you choose which faction to support in a war to conquer Las Vegas. With this vision in mind, the title features five endings, each with dozens of possible variations. This example shows interactive storytelling is as subjective as any other creative endeavor. It's up to you to determine the best way to tell your story, which brings you back to this book's point.

OKAY, BUT HOW CAN THIS CONTRIBUTE TO JOURNALISM?

In the end, interactive storytelling shares many similarities with its passive counterpart. You create an experience that should speak emotionally to the audience, making them learn from clashing belief sets. How you accomplish this objective is what changes. But now that you understand the lessons from *The Walking Dead*, it's time to

learn how to use these concepts to tell a truthful narrative in a documentary game. To do so, you'll learn about *1979 Revolution: Black Friday* in the following passage. As it turns out, it uses the same narrative framework that *The Walking Dead* developed.

'1979 REVOLUTION: BLACK FRIDAY' TEACHES YOU HOW TO MAKE AN INTERACTIVE DOCUMENTARY

Throughout this book, you learned the techniques that video game developers have created to design engaging, interactive experiences, but all the examples shown here were about fictional narratives. This situation has changed now. It's time to see how to use these concepts to tell a real-life story through this medium. So, this chapter will analyze *1979 Revolution: Black Friday*,[1] a documentary game about the Iranian revolution. It came out in April 2016, after the independent studio *iNK Stories* spent three years working on the project under the leadership of its founder: the Iranian filmmaker and game designer

Navid Khonsari. He gave an exclusive interview[2] to discuss his experience working on this game, which the following pages will dissect. But before going into detail about his project, it's essential to tell the story behind it. It started with an Iranian girl.

ONE GIRL, TWO LIVES

She lives a double life in a small village in Northern Iran. Every day, no matter how scorching the Sun is outside, she must cover her head with a hijab. It's a reminder of what people expect of her. She'll grow up, get married, and spend her life serving her husband. But what goes through her mind? Perhaps dreams of college, a career, and above all, freedom. But she's a girl in a small Iranian village, and she knows these wishes are beyond her grasp. Despite this reality, another side of her is oblivious to most people.

Every day, she wears whatever she wishes. She drives her car anywhere, without a care, while listening to her favorite songs on a radio cranked up to max volume. Per Iranian law, she should face incarceration for this behavior, but she does all this, and much more, by going to the only place where she's truly free: the virtual world of *Grand Theft Auto*.[3]

The series has grown with each new entry, with *Grand Theft Auto V*[4] breaking the world record for the most profitable piece of entertainment ever. It accumulated a revenue of $6 billion as of April 2018.[5] But what's so appealing about these games? Many factors are at play here, but most gamers mention one in particular: freedom.

These titles immerse players in virtual cities, where they can go anywhere and do anything. But as you may imagine, creating these detailed virtual worlds is an enormous undertaking. These projects involve years of development, hundreds of millions of dollars, and over a thousand people. And, in this army of artists, one man helped shape the franchise into what it is today.

Iranian talent

Navid Khonsari spent four years and seven months working with *Rockstar*, the company behind these games.[6] According to him, he was a "Cinematic Director, a role that included motion capture, audio, and commercials." He was also a Director of Production. From 2001 to 2005, he directed the audio and cinematography of many *Grand Theft Auto* titles,[7] being the first Iranian to appear in the franchise's credits. And his work on this series is only a fraction of his portfolio. He also worked with other studios to make games like *Max Payne,*[8] *Alan Wake,*[9] *Resident Evil 7: Biohazard,*[10] and *Homefront.*[11]

Many of his projects received awards from the specialized press.[12] He has become a prominent figure in the industry, speaking at various events, such as the Game Developers Conference.[13] With all this success, it could be difficult for you to imagine, but life hasn't always been grand for Khonsari. As a mere child, he fled his native land.

Iran underwent a revolution in 1979 that overthrew its monarchy, replacing it with the Islamic Republic. The result was Islam becoming the country's official faith.[14] Fearing for the future, Khonsari's family fled to Canada. It was difficult for him to adapt, but a passion for filmmaking blossomed over the years. To pursue a career in the field, he graduated from the University of British Columbia in 1991 and the Vancouver Film School in 1997.[15]

After spending a few years working with films and documentaries, he got the opportunity to use his cinematography skills at *Rockstar*.[16] His career gained traction from there, becoming something most people hold as only a dream. He has come a long way since fleeing Iran but never moved away from his roots. As an adult, Khonsari visited his country. Everything had changed, and he was about to as well.

On his trip, he visited a small village in Northern Iran. It only had two computers, but people still found a way to entertain themselves with video games. Many players even asked for Khonsari's autograph, but one girl wearing a hijab captured his attention. She told him how *Grand Theft Auto* was special to her. It allowed her to taste something she had never had: freedom. Albeit brief, the encounter had a lasting impact on Khonsari.

He realized the power video games have to create meaningful experiences that put players in another person's shoes. "I believe video games are the most powerful tool for letting people know what others have gone through," said Khonsari. So he started thinking about using this potential to develop video games beyond entertainment. This moment was a turning point in his career.

Returning from Iran, Khonsari decided to recreate real stories in video games, so players could experience them from the perspective of those who participated. With this idea in mind, there was a story he wanted to tell the world, the one that changed his life: the 1979 Iranian revolution.

A witness himself, he knew the story well as it was part of his own. Considering his familiarity with the subject, his experience with documentaries, and his years working with video games, Khonsari knew he was the right man for the job. So, *iNK Stories* started developing *1979 Revolution: Black Friday*, but a question arose: how to tell this story in an interactive medium?

The development of '1979 Revolution: Black Friday' begins

The first step in making a documentary game is similar to any journalistic project: collecting information. Khonsari and his team interviewed more than 50 historians[17] and 40 Iranian residents to tell this story as faithfully as possible.[18] They also collected over 1,500 archival photos and gathered political speeches from that era.[19] Other forms of media also became research objects.

Khonsari and his team studied films, journals, and documents on the revolution. They also sought advice from experts on the topic, including political, religious, and academic advisers.[20] This process allowed Khonsari to collect a comprehensive data pool about the 1979 Iranian revolution. But even with all this information available, continuing was still challenging. He now needed to decide how to share these facts through a video game.

Starting is the most challenging part

Designing a new video game is complicated. You stare at a blank sheet of paper, and it stares back at you. This situation can happen to any artist, even a veteran like Khonsari. After all, he was heading into uncharted territory as he had only worked on games about fictional worlds where the only restriction was how high his imagination could fly. But in his documentary game, the opposite was true.

He needed to design a thrilling interactive narrative while adhering to his source material. Although he had experience with documentary films, it was his first time using a video game to craft a truthful report. As such, he faced many challenges in this project, but one stood out. Khonsari believes creating an educational and fun experience was the most significant.

"This is a fine balance, and it's where we've seen other games about real events fail," he said. According to him, some previous attempts at making documentary games had put too much emphasis on teaching while forgetting that they need to engage players. As a result, these titles turned into virtual lectures. This lesson was critical, but it was also vital not to panic and overcorrect.

When a game gives players too much freedom, they may get overwhelmed and distracted. This scenario risks making them forget the story, betraying the project's goal. In the case of *1979 Revolution: Black Friday*, striking a balance between interaction and learning was an arduous mission. To find it, Khonsari needed to ask himself two questions. The first: what's the project's goal?

REVOLUTIONARY OBJECTIVES

When people think of Iran, images of an authoritarian regime and women wearing hijabs cross their minds. But life in this country was much different before the revolution. Ladies could wear what they wanted, and everyone could choose their religion. These facts are unthinkable in today's Iran. So, one of Khonsari's goals was to show people how much this country has changed.

"There's a contrast between the Iran people see on *CNN* and what they see in the game," he said. The game shows female characters wearing various clothes. And you interact with people from different classes and religions who hold opposing views about the revolution, leading to another of Khonsari's goals.

Iran was a divided nation. Many people supported the revolution, while many opposed it; the situation was ambiguous. Khonsari wanted to educate people on the difficulties of choosing a side and handling personal relationships when dealing with individuals who may oppose your ideology. But, to accomplish this goal, he needed to ensure players would be interested in his country's culture. Such a need brought another question to the table.

How to show a foreign culture?

Iranian culture is different from the ones in Western societies. Trying to show it could make it difficult for players to empathize with the game's characters. To avoid this problem, Khonsari carefully chose which elements of his native culture he'd show in his game. He wanted to create an experience that'd be interesting enough for people to explore but without being too foreign to the point of confusion. Reaching this balance was difficult, but he reached a solution.

Humans worldwide have more similarities than differences. No matter where you go, some things never change. Most people enjoy storytelling, music, and some level of sociality, for example. These universal traits became Khonsari's focus. "We compiled a list of cultural elements non-Iranian people would find interesting but also quite familiar," he explained. As a result, the game's levels, interactions, and dialogues are full of references to Iranian entertainment, pop culture, and gastronomy.

Extra Credits gives examples, such as "the ritual of serving tea or a love for traditional Iranian street bread."[21] This approach allowed Khonsari to create a relatable experience, even for people with cultures that are vastly different from Iran's.

Thinking of this approach and answering all the questions mentioned in the previous pages gave Khonsari clear objectives, enabling him to start designing the game to reach them. So, you'll learn in the following paragraphs how he told the story of Iran's revolution through a video game.

The premise of '1979 Revolution: Black Friday'

Start from the beginning. You play as an aspiring photojournalist, Reza Shirazi. In 1978, he returned to Iran to discover his country was amidst an uprising against the ruling king, the Shah. Your job is to photograph the revolution, but doing so entangles you into an underground web of characters who challenge your morality. You must interact with them and choose which side to take in the revolution.[22] These interactions happen in a simple yet complex way.

Using dialogue trees to inform

You talk to characters in the story through dialogue trees. Remember them from the previous chapter. These allow you to choose what to say to these people,[23] as the following image shows (figure 1). For each option, there's a unique response. This way, the game features conversations that reveal insights into the revolution. Most importantly, you converse with people who hold different opinions. Some favor the movement, while others despise it. This approach lets you know both sides of the conflict and understand how this historical moment divided Iranians.

Figure 1. Your dialogue choices also dictate whether you take a pacifist or a violent approach. (Credit: iNK Stories)

These characters also remember what you say. Based on that, their behavior towards you can change. These are meaningful interactions, as you can see a clear consequence for your actions, and the game goes even further in this department. Khonsari knows first-hand the moral dilemmas that can boil in a situation as intense as a revolution that changes an entire nation. Therefore, he wanted to use interactivity to make players experience these difficult choices. As you interact with other characters, you learn that nobody falls perfectly under the good or bad categories.

Using branching narratives to inform

These conversations lead to many moral decisions you must make, similar to *The Walking Dead*[24] from the previous chapter. As the YouTube channel *Extra Credits* mentions, "how do you deal with a parent who might believe the revolution is wrong? Or how do you defend a brother working for the military during all that?"[25] Considering the chaotic nature of the situation, people back then needed to choose who they could trust carefully.

Trusting the wrong person could ruin your life, especially if you opposed the revolution. Likewise, in this game, you must carefully evaluate these ambiguous situations before deciding. These choices will drastically change the narrative. This statement may have raised a red flag in your mind. If this game tells a real story, how can it let you change it?

Two sides of the same coin

1979 Revolution: Black Friday tells two stories. One shows the events preceding the Iranian revolution. The game only allows you to witness them as they happen around you. You can't change them. The second narrative is personal. It's your journey navigating through the experience, interacting with its characters, and making decisions that are relevant for you but never trigger a chain reaction that influences historical events. Your life is a good parallel.

You make choices that impact yourself and the people around you. But odds are you won't change history. With this approach, Khonsari and his team created a game that allows you to make meaningful choices while staying factual. And these choices are critical for the experience, as they ensure that you're in the same mental state as the people caught in the middle of these events in real-life, promoting empathy. Remember what Khonsari said: "video games are the best tool to put an audience in another person's shoes." His game is a prime example. But, reading these last few paragraphs, you may have noticed a recurring theme.

All elements of *1979 Revolution: Black Friday* mentioned so far are about people. You talk to them and make decisions based on these interactions. These are informative, but this game has other communication channels through which it educates about Iran's revolutionary movement. Remember the game's premise: you're an aspiring photojournalist. Your photos play a significant role in this title.

Photographic Memory

Throughout the game, you use a third-person perspective as you walk through the streets of Tehran, photographing the events around you. The interesting twist is that each photo you take has a real-world equivalent. After taking a picture, the game compares it with a real-life image. The game also shares a paragraph explaining the meaning of what you see, as the following image shows (figure 2). You can read about these events in a journal for more insights. Although these texts expand the context, they're optional. You choose how much information you wish to receive. And in addition to these photos and texts, *1979 Revolution: Black Friday* also uses other techniques to inform.

Figure 2. *iNK Stories* uses photography to bolster its game's educational value. (Credit: iNK Stories)

ENVIRONMENTAL STORYTELLING IN THE REVOLUTION

A crucial element of *1979 Revolution: Black Friday* is its environments. They go beyond replicating the streets of Tehran. They contain many interactive items, and each tells a story snippet. For example, as you walk next to a car, it's possible to hear its radio. If you get closer, you can listen to a news report about an event of the revolution. The game rewards you in many more ways for being observant.

You can pay attention to protesters, signs, and graffiti. You can also pick up documents and tapes with political speeches that give more information on what you´re witnessing. These examples show how *1979 Revolution: Black Friday* immerses you in detailed environments that combine a linear path with these narrative elements, directing

you through a controlled route full of interactive items that deepen the story, as shown in the following image (figure 3). But anything good in excess is bad. So, Khonsari needed to be careful not to overwhelm players.

Figure 3. This game features rich environments with details that give you more insights into the revolution. (Credit: iNK Stories)

Less is more

Although some of Khonsari`s previous projects featured large worlds where players could go anywhere and do anything, *1979 Revolution: Black Friday* takes a different approach. It relies on linear levels, wherein players walk through a predetermined path in the streets of Tehran during critical events of the revolution.

This approach allowed the artists at *iNK Stories* to have more control over what you see and do inside the game, ensuring that you'd stay focused on its point: the story. And although this explanation may seem straightforward, game design seldom is. Most video games require various testing rounds to ensure they're engaging. *1979 Revolution: Black Friday* was no exception.

Testing the revolution

iNK Stories needed to conduct many rounds of prototyping and testing to ensure that players would enjoy *1979 Revolution: Black Friday*, resonate with its characters, and learn from it. Each stage of testing meant more feedback to refine the game's design. In the gaming industry, studios have many techniques to test whether their ideas work. When creating his documentary game, Khonsari used *Twine*,[26] paper prototyping, and gray box testing. These terms could be foreign to someone outside this line of work. So, this topic will explain each, starting with *Twine*.

This software allows you to create and share interactive non-linear stories without knowing to program. You can either download it on your computer or use it online through your browser. *Twine* has become a standard tool for video game developers to craft and test their branching narratives. When creating a story, all the choices players can make appear on your screen as a diagram, giving you a bird's-eye view of each interaction.

Easy and fast to use, video game developers often rely on *Twine* to test their stories before committing to creating these narrative branches inside the game. With this kind of tool, it's easier to understand if the choices that the experience gives make sense within the plot and whether they result in meaningful interactions. But despite all the digital marvels available in this industry, it's also possible to test a game's design with ancient technology.

Video game developers sometimes choose a pen and a sheet of paper to test their branching narratives.[27] This approach is similar to *Twine*. You can use this method to draw a diagram of all choices and their consequences. The goal is to ensure they're cohesive and impact the experience meaningfully. But, despite this similarity, paper prototyp-

ing has one advantage over its digital counterpart: it's available anywhere. You can test your ideas in the office, at home, or waiting for your dentist appointment. But not all is perfect. There's a downside. Paper prototyping can become chaotic, as you inevitably erase or cross-out elements to change your design and improve it. And now that you understand paper prototyping, learn about the final technique Khonsari used to test his title.

Gray box testing creates an early version of your project that features the actions you want players to take but lacks details in its environment. Sometimes, it only features literal gray boxes in place of objects and buildings, hence the name.[28] This procedure aims to test the game early in development before creating the virtual world, so you can refine its interactions before many resources go into your current vision. According to Khonsari, this test was a success in his game. Even without a colorful world, players still enjoyed it.

Combining these three methods, Khonsari and the artists at *iNK Stories* tested the story and gameplay of their project, tweaking it until reaching the design dissected in this chapter. But if there's one thing that artists will always tell you is that no matter how much you test and ask for feedback, you can't know with absolute certainty how your audience will react to your work. So, whether *1979 Revolution: Black Friday* would appeal to its demographic was still a mystery to everyone. But after three and a half years of dedication, planning, and testing, the time to find out had arrived.

The reception

1979 Revolution: Black Friday launched on April 5th, 2016.[29] It brought a bittersweet feeling to Khonsari. The game became a success among critics, receiving several award nominations in prestigious events, including The Game Awards 2016, D.I.C.E. Awards, and the 19th

Independent Games Festival.[30] Even UNESCO mentioned this title in the 2016 report *Empathy, Perspective, and Complicity: How Digital Games can Support Peace Education and Conflict Resolution.*[31] The study argues projects like *1979 Revolution: Black Friday* need to become an object of academic research, as they can promote empathy for people in different cultures and periods.[32] With this positive reception, you could believe that Khonsari had achieved all his goals, but this was far from the case.

He wanted people in Iran to play his game, especially young Iranians born after the revolution, to experience how much their nation had changed. To do this, *iNK Stories* localized the project in Farsi and wanted to distribute it free in the country, but these plans quickly fell apart. Some people in Iran disagreed with how this title shows the revolution. Even before it had come out, the newspaper *Kayhan* started a campaign to attack it, writing articles labeling it as "pro-Western propaganda."[33]

The situation escalated, going as far as the press accusing Khonsari of espionage. As a result, he felt afraid to enter the country, and many production members adopted aliases to protect their identities.[34] One concept artist based in Iran even fled abroad.[35] Considering this country´s history dealing with Western game developers, Khonsari and his crew had plenty of reasons to be cautious.

In August 2011, former U.S. Marine Amir Hekmati worked for Kuma Reality Games to create a language-learning video game for the United States Defense Department. He was of Iranian descent and visited the country to see his grandmother, but authorities quickly arrested him for espionage. They accused him of collaborating with the American government to install a CIA presence in Iran.[36]

On January 9th, 2012, death became his sentence, later reduced to 10 years.[37] On January 16th, 2016, the United States negotiated a prisoner swap, freeing Hekmati.[38] Stories like this show how Khonsari and his team were correct to take preventive measures when accusations of espionage began to emerge. All this tension started before the game had even come out. When it launched, the situation continued to deteriorate.

Shortly after *iNK Stories* released its project, Iran's National Foundation for Computer Games (NFCG) banned it. This institution believes *1979 Revolution: Black Friday* "poisons the minds of the youth and young adults... using false and distorted information."[39] The NFCG blocked all websites distributing the game and confiscated as many physical copies as possible.[40] Khonsari shared his side of the story with *FOX News*.

According to him, the Iranian government sees any American-made entertainment depicting Iran as biased. "It's fair to say that anytime Iran has something written about them in the West, they feel as if it's propaganda against them."[41] This mentality led the NFCG to ban *1979 Revolution: Black Friday*, rendering Khonsari unable to reach out to his compatriots through his game.[42] But there was a silver lining. He still managed to connect with many Iranians worldwide.

During his interview for this chapter, Khonsari mentioned how his game helped create a conversation in Iranian families outside Iran. For example, parents who lived through the revolution can now show why their native land has become what it is. "There are kids born in the U.S. and other parts of the world with an Iranian father, but they never actually discussed what had taken place in Iran, so we opened up a new communication chapter," Khonsari said.

Working on a project that helps these families is undoubtedly a milestone in his career. For this reason, he still believes this game was successful, despite the government preventing it from achieving all its goals. But after reading about all the positive reactions this project received, a question may have crossed your mind.

WHY HAVE JOURNALISTS NOT EMBRACED VIDEO GAMES YET?

These professionals have used all media types to tell real-life stories, including books, television, and films. But they've mostly ignored video games. Why? According to Khonsari, the reason is simple. To effectively tell a story on a platform, knowing its particularities, strengths, and weaknesses is crucial. Video games are unlike any other form of entertainment, requiring specific skills. A studio must assemble a team with experience in truthful storytelling and game development to effectively show factual events through a video game. Unfortunately, very few people have mastered both departments. So, finding the right professionals to create these projects is challenging. Khonsari believes that this is where *iNK Stories* excels.

Most of the people in the company have experience working with feature documentaries and other forms of truthful storytelling. Therefore, they're familiar with converting an event into a compelling narrative. At the same time, these people also have a game design background. Combining these talents allowed Khonsari to assemble a game development team that understands how to tell a real-life story, giving life to *1979 Revolution: Black Friday*. But how can other journalists follow the same steps? There's a simple answer, according to Khonsari.

Play games! Many books on the topic exist, including this one. But nothing replaces holding a controller and trying many titles yourself. Video games are an interactive medium. Writers can do their best to describe it to you, but you need to interact with these projects to understand why they work and are unique.

THE ROAD AHEAD

Kohnsari sees a future in truthful interactive storytelling growing with smaller studios, including his own. Considering the success of *1979 Revolution: Black Friday*, the company had a solid start. As the story of the man who fled Iran as a child continues, you can wonder what he'll accomplish next. If the game about the revolution that changed his country is any indication, his following projects will go beyond benefiting his company. They'll help the genre of documentary games grow and inspire other teams to pursue the same goal, opening a new chapter in journalism's history.

PART III

THE ROAD AHEAD
OF YOU

11

A QUICK GUIDE ON DESIGNING A JOURNALISTIC VIDEO GAME

❧

It's time to level up. Reading this book may have inspired you to tell a real-life story through a video game. So, the following pages will teach you how to develop such a project. This analysis features quotes from an exclusive interview with Ian Bogost,[1] co-author of *Newsgames: Journalism at Play,*[2] the manuscript that inspired this one. It also contains insights from Sam Barlow,[3] writer and director of *Her Story,*[4] an award-winning game with plenty to teach about this subject. Combining their insights with the literature on the topic led this passage to be structured in the following five segments:

1. The challenges: you'll learn about the difficulties you'll face developing a journalistic game.

2. The limitations: you'll read about this endeavor's technical and creative constraints.

3. Learning from fiction: you'll learn about two titles that circumvent these restrictions.

4. Designing a journalistic game: using these lessons, you'll see how to adapt a journalistic story into a brief game design proposal.

5. Criticism: Ian Bogost criticizes these ideas. Then, you'll learn how to avoid the issues he identified.

The Challenges: Choosing the Right Topic

You must find a story to tell. According to Bogost, this task can be easier said than done for one simple reason. "The gaming community is allergic to nonfiction," the researcher said. "Think about how giant commercial games talk about contemporary events but then steer clear of them at the last minute," he added. Indeed, many developers create games based on actual events and even reference them but avoid addressing them directly. "We just don't have a culture of nonfiction," he explained. This situation gets even more complicated when you try to address politics. According to Bogost, gamers avoid anything political in their interactive entertainment.

"There's this weird sentiment among gamers that they don't see themselves as political beings, even though they are. But they don't think of themselves as such and don't want to engage with politics," Bogost argued. There are two reasons why this situation occurs. Firstly, the researcher reckons that this is a habits problem. Unlike other media, modern games have mostly always told fictional stories.

Therefore, players aren't used to seeing their favorite pastime addressing real-world subjects directly. And to understand the second motive, you must look at another industry. One that has faced and solved a similar problem decades ago.

During an online class, the Oscar-winning screenwriter Aaron Sorkin said the following about movies and television shows:

> *"You're gonna hear a lot of rules. A lot of them are gonna be wrong [...]. There was a hard and fast rule: you can't write about politics. You can't write a show that takes place in D.C. There had been a rule for a long time that baseball movies don't work. Then, Field of Dreams, Bull Durham, and Major League were released in one year, all of them massive hits." – Aaron Sorkin*[5]

He vehemently disagrees that you can't address specific topics in a medium. Sorkin elaborated further on his perspective in a panel during an industry event. He discussed his award-winning political TV drama *The West Wing*[6] and why screenwriters avoided the topic. "The conflict was going to be ideas, and some people were going to disagree with those ideas," Sorkin said, arguing that addressing politics was never a problem.[7] It was a symptom.

According to Sorkin, the issue was sharing with people an idea with which they disagreed, making them switch channels. You can learn from this insight. To create a video game that addresses real-life events, even politics, without driving gamers away, choose a relevant topic but avoid discussing ideological concepts. The story this chapter will convert into a game is a good example. You'll read more details in due time. But for now, you need to know one thing: choosing an appropriate topic is only the beginning.

The Challenges: Education

To create quality content for any platform, you must be intimate with its intricacies. Although this book has taught you essential video game storytelling concepts, it never claimed to be a complete guide on designing and developing one. Therefore, in addition to playing many titles, you must seek the appropriate training to create a journalistic game. So, you can find in this chapter's conclusion a list of eight books that can help you. But keep in mind that these readings are only the beginning. You should read many other manuscripts and be open-minded when reading them. This project will make you explore uncharted lands.

Journalists strongly understand gathering and presenting facts to an audience through various platforms. You can create documentaries, book reportages, radio shows, and other reporting types. But journalism is yet to establish the best practices for doing the same through video games. According to Bogost, "it has never been clear what a game's version of mounting evidence and transforming it into credible material would look like." So, if you wish to pursue a journalistic game, you must be comfortable working without an established ruleset. But that doesn't mean that other people haven't tried to create similar projects. You can learn valuable insights from them, especially one.

The Challenges: Teaching the Wrong Lesson

When working on a documentary, your objective goes beyond telling a story. You also want to educate people. However, a misguided approach can jeopardize your project, as the audience can leave with the wrong message. This issue is what happened to *JFK Reloaded*.[8] It's a game that simulates the last moments of America's 35th Pres-

ident. It puts you in the shoes of Lee Harvey Oswald, his assassin. Your goal is to replicate that day's events. Reading this description, you may have had an instinctive adverse reaction to this title's premise. But it's not a simulator for sadistic individuals. Instead, it had a statement to make.

According to the company responsible for the game, *Traffic Software*, its objective was to debunk a well-known theory concerning the President's assassination. "We genuinely believe that, if we get enough people recreating the final moments, we'll be able to disprove any notion that someone else was involved in Kennedy's assassination," said Kirk Ewing, the studios' Managing Director, in a statement to *The Guardian*.[9] *JKF Reloaded* tackles this challenge by offering a realistic recreation that lets players see that one shooter could've performed the three shots that killed Kennedy. That was the intention, at least. The reality, however, turned out much differently, as Bogost commented.

"The game explicitly said that the purpose of the simulation is to provide evidence that this event happened in a certain way. And playing it made you question it," the researcher said. As it turns out, *JFK Reloaded* argued the opposite of what its creators had intended. To understand why that happened, you must look at its scoring system. The game gives you a score depending on how closely you can replicate the three shots. A perfect attempt earns you 1,000 points. Players can try as many times as they want, using various camera angles and analyzing each attempt's ballistics. With so many facilitating factors, you'd imagine that recreating Kennedy's assassination would be easy, but you'd be wrong.

Six months after the game's release, no player worldwide had perfectly recreated the three shots. The highest score was 782, meaning the best attempt was only 78.2% accurate.[10] Consequently, people left the experience more likely to believe that a second shooter was involved. Instead of debunking this theory, *Traffic Games* accidentally supported it. "Imagine watching a documentary that makes you think the opposite of what the creator wanted you to believe," Bogost said. This example highlights the need for proper education to avoid undesirable outcomes when making a journalistic game. But, creating a masterful experience serves no purpose if a target audience is nonexistent. Finding one will be challenging.

The Challenges: Finding a Market

This idea's romanticism may start fading away in the following paragraphs. As films and books have proven, there's an enormous market for nonfiction. But can journalistic games become an emerging genre? "Yeah, it's possible," Bogost said, but there's a caveat. For that to happen, people must change their media consumption habits, which takes "an extreme, strong, and concerted effort to deliver that to people," according to him. He compares this endeavor to what a Silicon Valley company has accomplished. "Look how Apple has rammed its will down the world's throat. It has been aggressive, backed by piles of money," he explained. A single journalistic game is unlikely to gain attention.

To see your journalistic games thrive, you need to think of how to attract people to them. "They must exist for players on some cadence. It doesn't have to be daily, but it has to be more than very infrequently," Bogost explained. Such reality shows that this endeavor would be far from solo. You'd need other teams working on different projects, so your company can release games on a schedule

that keeps them in people's minds. As Bogost argued, "you need a kind of regularity that's enough to identify it as a genre rather than a curiosity." Nobody said that changing people's media consumption habits would be easy. But at least there's one silver lining.

The current *status quo* may also open up a gap for the emergence of new storytelling types. For example, Bogost commented on the present situation of documentary films on streaming services. He reckons there's an abundance of content that can overwhelm the audience. "There's so much of it that people want to break free from it for a while. They want to see something else. This problem is the opposite of what we have in journalistic games," he argued. You can see this situation as an opportunity. As people seek something new, you can give it to them. But it's easier said than done. You'll face creative limitations even if you pursue proper education and consider the challenges mentioned here. It's time for you to learn them.

The Limitations: Time Constraints

Video games can take a long time to make. True, you can build a simple one in 24 hours. However, a journalistic title would take much longer. You must plan its design, research extensively, and elaborate its storytelling. This reality limits the kind of nonfiction stories you can tell through this medium. You can't share news or ongoing narratives. The production time of video games is incompatible with the agility this reporting type requires. This limitation leaves you with intricate stories that have already been concluded and thoroughly researched. So, it'd be best to focus on creating a documentary game, like *1979 Revolution: Black Friday*.[12] But, this endeavor will be challenging. Its novelty is one reason for that, but there's another.

The Limitations: Development Costs

Video games are expensive to make. Although not every title needs a budget of millions of dollars, even smaller ones require substantial investment. Take the project discussed in the previous chapter as an example. *1979 Revolution: Black Friday*[11] is relatively simple, but it still needed funding of $395,000.[12] This high development cost derailed the developer's plan to release a trilogy, as its crowdfunding campaign failed to reach its goal. His difficulty funding his games teaches a valuable lesson.[13]

Finding investors is difficult, even for someone who has worked on some of the most critically-acclaimed titles, like *Grand Theft Auto III*[14] and *Max Payne*.[15] Therefore, you must find ways to cut costs considerably to ensure your game is financially viable for a news network. Bogost argues that one way to do this is by changing your preconceptions. According to him, you should avoid assuming that gaming is only about hypercomplex blockbuster experiences. A nonfiction film doesn't need to mimic Hollywood. Likewise, a documentary game doesn't need to imitate *Call of Duty*.[16] You can create a project that engages people despite its simplicity. The visuals are an area you can simplify to save money.

Big video game companies constantly push for more graphical fidelity and better animations. The consequence is budgets skyrocketing. According to the developer Kim Swift, creating a virtual character can cost up to $80,000.[17] She justifies this figure by explaining the process's complexity. It involves different departments, various tools, and a team of people, including concept artists, animators, textures, and others. Therefore, simplifying graphics is an excellent way to reduce the initial investment. But you must think about how to do

so in a way that still results in a compelling experience. You'll learn to accomplish this feat later in this chapter, reading a proposal for a documentary game. But, for now, there's another financial topic you must understand.

The Limitations: Costs for Players

Journalism informs the masses. This premise is a problem. While it's true that video games are becoming increasingly popular, the entry barriers to gaming are notoriously high. The biggest hurdle you must overcome is cost. All the titles discussed in this book require special equipment to play them. That could be a personal computer (PC) or a dedicated system like a PlayStation 5. The problem is that a gaming PC can cost $600,[18] and a PlayStation 5 can go for $500.[19] So, for your project to achieve its journalistic goal, you must release it on a cheaper platform. Thankfully, options exist.

Smart TVs and smartphones are the top candidates, especially the latter, according to Bogost. "What we know happened over the last 12 years was the massive rise of mobile devices all across the globe," he said. There are more than 6.5 billion smartphones globally, meaning that almost 90% of the world's population has access to them.[20] With them, "you wouldn't require new investment on the part of the consumer," Bogost added. The gaming industry has noticed this trend. In 2022, smartphone gaming generated over $274 billion in global revenue.[21] Accessible to most people, this platform is where your game needs to be. But, as you bring interactive entertainment to people unfamiliar with it, there's another limitation to consider.

The Limitations: Accessibility

The lack of accessibility to new players is another factor that makes the entry barrier to gaming high. Playing a video game can become frustrating for people unfamiliar with the medium's language. Additionally, this demographic tends to find it challenging to navigate a 3D environment. Their difficulty frustrates them, driving them away. This situation is a problem for a project that aims to inform the masses. So, to make a journalistic game, you must create a design accessible to newcomers. Navid Khonsari discussed this topic in his interview from the previous chapter.[22]

According to Khonsari, this is precisely why *1979 Revolution: Black Friday* has simple controls. Aiming for a broader demographic, he wanted to ensure his game would be as intuitive as possible to people unfamiliar with video games. However, his design still requires players to navigate a three-dimensional environment. This feature may have deterred some individuals who got frustrated with their inability to perform tasks in that space. With that said, a journalistic game should restrain the player's movement. It also needs simple visuals to save costs, as explained in the previous topic. You may think that these limitations preclude making a compelling experience. But successful fictional titles have already circumvented these constraints. So, learn about them.

Learning from Fiction: Absence of Movement

Depending on your preconceptions about gaming, a game where players can't move may sound counterintuitive. But there's a genre based on this premise: point-and-click adventure. The idea is simple. You see an environment from a fixed camera angle and click on various objects to interact with them and perform tasks, as shown in the

following image (figure 1). It comes from *There's Something in the Sea*.[23] Take-Two Interactive created it as part of the marketing campaign for *BioShock* 2.[24] In this title, Mark Meltzer is a detective investigating the disappearance of various children. His investigation becomes personal when his daughter becomes a victim.

Figure 1. This game features a static environment where you click on items to interact with them. (Credit: Take-Two Interactive)

There's Something in the Sea features detailed environments that don't require you to move to explore them. Instead, you see a static image with various interactive elements in every new room, like posters, objects, and documents. Clicking on an item lets you inspect it. Your objective is to piece together the investigation that Mark Meltzer was conducting, so you can understand the events that led to *BioShock* 2. This approach eliminates the need to maneuver through a 3D space, making it more accessible to people unfamiliar with gaming. So, that's one problem solved. But you must still learn how to simplify the visuals to save money. Another game teaches you how.

Learning from Fiction: Rethinking Graphics to Cut Costs

When you imagine a video game, virtual worlds and characters may come to mind. But you can think out of the box, as *Her Story* proves. In this title, you assume the role of an investigator who uses a computer to review footage from a suspected murderer's interrogation. Based on the information you gather, it's up to you to decide which fragment you want to watch next. Your goal is to determine whether she committed the murder, why, and how. The interesting twist is the footage the game uses. It never displays a digital character. Instead, it features live-action footage of Viva Seifert's performance, as shown in the following picture (figure 2). The game's director, Sam Barlow, contributed to this chapter through an exclusive interview explaining his approach.

Figure 2. This game uses a computer as its interface to ensure players will navigate through it easily. (Credit: Sam Barlow)

Using live-action footage allowed him to save a significant amount of money. "I could get a photorealistic performance without spending $5,000,000 on motion capture," he said. This approach also had another considerable upside, according to the game designer. For *Her Story* to work, players needed to see the subtleties in Seifert's performance. "The project was all about subtext, so it wouldn't have worked without the ability to capture Viva's performance. It wouldn't have come together the same way without that," he argued. So, using live-action footage is an exciting alternative for a journalistic game to save costs. And this title still has a lot more to teach you.

Learning from fiction: Appealing to Non-Gamers

Her Story is a masterclass on creating a title accessible to non-gamers. This demographic quickly understands it. Barlow uses the player's familiarity with other media to accomplish this feat. "They open a newspaper, see a big photo of Viva's character in the interview room, read the headline, and get what the game is about. They can also infer the role they're supposed to play in it. They don't have to know anything about gaming," the designer explained. He knows the player will easily understand these elements, so he combines them to open his game. His goal was to create a compelling introduction inviting people into the experience. Once intrigued, they explored the narrative and the intricacies of Viva's character. According to him, the design of *Her Story* also helps solve the problem of 3D movement demotivating people unfamiliar with gaming.

"The challenge for some non-gamers isn't just how to navigate in 3D, but why. So much gaming emphasizes 3D navigation because that's easy to program, but most storytelling focuses more on character than geography," Barlow said. These thoughts aligned with what

the previous pages argued. To make a journalistic game, you must remove 3D navigation, but Barlow provided a different reason for why you should do so. "Creating a game that promises to explore a character rather than a space makes it much easier to sell the experience to a general audience," he argued while expressing optimism over using elements from *Her Story* to create a documentary game.

"An early prototype I created used real-life transcripts from a real case. It was one of my early confidence boosters. When I played *Her Story* with this real content, it worked. It was exciting for me to explore and discover this real case through the game," Barlow said. With an unorthodox approach, his project won various awards, including "Game of the Year" from *Polygon*.[25] Even real detectives shared their praises. For example, the private investigator Steve Morrow played *Her Story* and said, "I like that the evidence, like in real life, is coming at you in different ways, directions, and times [...] That was reflective of real life. I enjoyed it. I had a great time."[26]

Learning from fiction: using accessible platforms

A year after *Her Story* launched, a smartphone version became available for iOS and Android.[27] This release shows you another benefit of Barlow's approach. In addition to being highly engaging, it's also technologically simple. Consequently, you can efficiently run it on your phone, removing the financial barrier that keeps many people away from video games. It'd also be possible to port *Her Story* to Smart TVs, but no news suggests Barlow is considering such a move. Hopefully, his project helped you understand that developing video

games doesn't need to cost millions of dollars. With ingenuity, you can create a compelling experience on a small budget. Additionally, *Her Story* and *There's Something in the Sea* have one last lesson to teach you about cutting costs.

Learning from Fiction: Using Storytelling to Cut Costs

The two games mentioned in this passage have one similarity. Both use an *in medias res* story structure. Recap chapter four. Developers often use this approach to skip a narrative's introduction and get players into the action as soon as possible. *Her Story* and *There's Something in the Sea* start after their inciting incidents have already happened. In Barlow's project, this point is the murder you're investigating, and in *BioShock 2*'s marketing game, it's the kidnappings in Europe. In both instances, the rest of the experience is about figuring out what occurred before you took control. Using this structure in your storytelling helps you create a more engaging interactive story, but it has another benefit. It cuts costs.

If these two games had adhered to a traditional three-act structure, they'd need to show you the story's first act instead of making you uncover it. That means Barlow would've had to find a way to shoot a lot more footage. As you can imagine, describing these events in documents, audiotapes, and interviews is far cheaper. Additionally, he'd have to change the entire experience, as it'd no longer be about a mystery for you to uncover. The same holds for *There's Something in the Sea*. So, use *in medias res* in a documentary game. Speaking of which, it's time to start designing one. After learning about the limitations and constraints of such an endeavor, you'll read a proposal for a documentary game that circumvents them.

Designing a Journalistic Game: The Premise

This game needs a story to tell. It must be relevant but avoid addressing ideologies, as explained earlier in this chapter. Here's a good candidate. In 2002, the most memorable journalistic investigation in Brazil's history happened. In Rio de Janeiro, many crimes go uninvestigated as the police struggle to keep up with such high demand. Amidst such chaos, the journalist Tim Lopes decided to act.[28]

He infiltrated the city's drug trafficking epicenter and reported his findings, resulting in several arrests. He continued his work a year later. The citizens of Rio's most impoverished areas contacted him, denouncing sex trafficking activities.[29] Once he discovered when, where, and how criminals operated, he entered a slum with his hidden camera.[30] The country was shocked when he returned. Now, please read how to turn his story into a documentary game.

Designing a Journalistic Game: A brief Design Proposal

Set up the stage. You play as Tim Lopes. The story starts with you halfway through his sex trafficking investigation. Like in *Her Story*, you read a short newspaper article briefing you on the case. Then, gameplay fades in. You're in Lopes' office. You sit in his chair, unable to stand up, but you can move the camera 360 degrees to observe your surroundings, like in *There's Something in The Sea*. You can also use his computer to read documents and emails. These sources inform you of the background information. Once prepared, you pick up a list of contacts. You interview them. The story ends once you identify correctly how, where, and when the sex traffickers operate. It has two endings, depending on whether you're correct. The following pages expand on this description.

DESIGNING A JOURNALISTIC GAME: CREATING AN IMMERSIVE STATIC WORLD

It's important to make players feel immersed in this documentary game. In chapter four, you learned the importance of immersion in gaming. On that occasion, the Level Artist of *Dishonored 2*,[31] David di Giacomo, shared a ruleset you can use to create immersive experiences.[32] The vital thing to observe is that none of his advice mentions movement as necessary. The only exception is implementing visual landmarks to keep people from getting lost. Apart from that, it's possible to use the insights di Giacomo shared to recreate Lopes' office and make it immersive. So, read how this documentary game proposal can use the rules shared in chapter four.

Create multiple sensory information channels: remember the importance of audio to sell the illusion of a living world to players. For example, since Tim Lopes' office is in an urban area, this game would feature urban background noises and workplace chatter.

Build cognitively demanding environments: the player's mind must constantly absorb information. Tim Lopes had plenty of post-it notes and small items on his desk. The game would use them to create a detailed environment.

Let players interact with the world: to get immersed, they must feel that the game acknowledges their presence, so Lopes' desk would feature interactive items. For example, players could pick up and inspect each object in the room and the post-it notes.

Items must have consistent behavior: the game would also avoid overwhelming players. Remember what Di Giacomo stated in his interview: "if an overabundance of elements around objects drowns items necessary to understand the story, then it's a mistake."

Avoid visual cues: the game would keep them at a minimum. Post-it notes and computers are familiar to people, so this title would use them to inform players, give instructions, and share objectives.

Now that you've learned how this project can use these concepts, read how the visuals in Lope's office can fulfill another purpose.

Designing a Journalistic Game: Environmental Storytelling

Remember that this is an audiovisual experience. It can use the players' visual literacy to communicate more effectively with them. Remember what the creative director of *BioShock*,[33] Ken Levine, said in chapter six: "Players take audio information at a low rate, but they can take visual information at a high rate."[34] This documentary game would use this concept to convey Lopes' character to the audience. For example, he was an avid soccer fan, and images from that sport filled his walls. The items in the virtual recreation of his office would reflect that. The same holds for other parts of his life, like his family pictures. So, environmental storytelling would strengthen his characterization. But it'd also do the same for the case he was investigating. Please, look at the following image (figure 3) to understand why.

Figure 3. The board *BioShock* players see before one of the most memorable twists in gaming. (Credit: Take-Two Interactive)

For players to visually measure how far they've gotten in their investigation, this documentary game would place a board in Tim Lopes' office, similar to the previous image. As players uncover more information about the case, the wall fills up with notes, photographs, and other documents, with which players can interact. And this environment would also inform people how laborious journalism can be.

Lopes often had to work late shifts. Caffeine and cigarettes were his best friends on these long nights. As a result, coffee mugs and full ashtrays would litter his office's digital recreation, communicating this aspect of his life through environmental storytelling. These are critical details, but it's up to players to decide whether to pay attention to them. And there are other instances where their decisions would matter.

Designing a Journalistic Game: Meaningful choices

Once players finish gathering the background information from Lopes' office, they'd have to choose who to interview to keep the investigation going. These conversations would happen in a live-action format, as seen in *Her Story*. But this proposal goes one step further. Players would use a dialogue tree system and narrative branches to choose what to ask each interviewee. Remember what a writer of *The Walking Dead*,[35] Mark Darin, said in chapter eight: "Without a linear path, the player is encouraged to explore, but instead of exploring landscapes, they're exploring ideas."[36] So, the goal would be to encourage people to explore this case's human aspect. But there's one piece of advice from Darin that's invalid here.

Mark Darin opposed allowing players to retrace their steps if dissatisfied with a choice's outcome. "We wanted this game to be about your decisions and how they affect people in the world around you. You can't just take back those choices," he said, referring to *The Walking Dead*. But a documentary game has an objective beyond entertaining you. It should also educate. Therefore, Tim Lopes' game *would* allow players to rewind their steps to understand better the case they're investigating. And these choices would also serve another purpose: introducing users to a problem many journalists face. Sometimes, the enemy comes from within.

Designing a Journalistic Game: Making an Argument

This game would use procedural rhetoric. The lack of support investigative journalists sometimes get from their employers endangers them. This reality is most prevalent in third-world countries. Some media groups pressure journalists to get strong results, so they start

taking bigger risks searching for the next big story.[37] This game would communicate this fact to players while arguing how detrimental this can be to these professionals' safety. But doing so would be challenging. To understand why, remember what the writer of *This War of Mine,*[38] Wojciech Setlak, said in chapter nine.

"Follow the show, don't tell rule. We don't write about how the war breaks people. Instead, we make the characters in our game suffer the consequences of the player's choices," Setlak said, referring to *This War of Mine*. So, Tim Lopes'game would refrain from explaining directly how media networks sometimes put too much pressure on journalists. Instead, this title would make players suffer the consequences of this negligence. For example, players could constantly receive emails from their boss saying how much he expects from this investigation. They could also start having less and less time to conduct each interview. This situation would lead to a consequence vital to the game's argument.

Designing a Journalistic Game: The Ending

After gathering the necessary information, players would use what they learned to decide where to go and when to get there. If they choose correctly, the game ends with a short video explaining how the investigation ended in real life. Five days after Tim Lopes ventured into the shantytown, the police discovered his remains in a makeshift graveyard. His case exemplifies the neglect that media groups can have with their investigative journalists. Many people accused Lopes' employer of putting him under excessive pressure to deliver more successful investigations. So, he started to become more daring in his undercover operations until it backfired in the worst possible way.[39] This ending is the payoff for the emails players received pressuring them to for results.

Designing a Journalistic Game: A Disclaimer

You've read only one suggestion on how to approach this endeavor. Storytelling, either fictional or factual, is a creative process. As such, there certainly are other ways to tell Lopes' story through this medium. You can take these ideas and adapt them to incorporate your thoughts, or you may pursue a different approach altogether. In any case, this is only one interpretation, and this creative exercise was an eye-opener. It exposed a weakness in this model. You can take these ideas and use them to make a documentary game, but there's something you must consider when choosing which story to tell.

Designing a Journalistic Game: Unsuitable for All Stories

In this research's original vision, this chapter would've been about converting two investigative stories into video games using the same design. The first was Tim Lopes' final investigation. But the second was supposed to be the Pulitzer-winning article *Snow Fall: Avalanche at Tunnel Creek.*[40] You learned about it in chapter one. But it would've been inappropriate to tell its story through a game. It wouldn't disrespect the source material. I'd betray the audience.

The design proposal you've just read about uses *in medias res* and frames the experience as a mystery for players to solve. Using this approach to tell the story of *Snow Fall* would lead people to believe there's a big surprise, a significant reveal, at the end. But there's none. The cast consists of regular people who were in the wrong place at an unfortunate moment. Their survival story is undoubtedly remarkable, but there's no enigma for you to solve at its end. You could

uncover this narrative through documents, audiotapes, and interviews, but no payoff would be waiting for you. So, the approach used in Tim Lopes' game is only appropriate for investigative journalism stories, as you can frame those as mysteries to be solved. And this is one of two other issues you must understand.

CRITICISM: IAN BOGOST'S FIRST CRITICISM OF THIS PROPOSED DESIGN

During his interview, the researcher shared his thoughts on this approach to making a documentary game. He found the concept attractive but also expressed concern. "People have never really understood what journalists do, and these professionals have done a poor job at helping the public understand what their job entails," he said. The author argues that the media portrays journalists in an outdated and stereotypical fashion because of this problem. "They depict him in a way that dramatizes his personality, as an enemy of the state. This kind of gumshoe journalism hasn't existed since the 1970s," Bogost explained. He also argued that dramatizing the press could have negative consequences.

"Especially in our country, the public has been turned off to journalists as a figure, which is a problem. When you occupy the role of someone in a game, it has to be a fantasy in which you want to involve yourself, and you have to find it interesting," the researcher argued. According to him, people no longer see this profession as they did four decades ago, and the idea of these professionals being enemies of the state who seek the truth is no more. The problem is that individuals may find playing as a journalist uninteresting. But would they? Bogost's words show a cultural difference between audiences in first-world countries and developing nations concerning how these two demographics see journalists.

CRITICISM: ADDRESSING BOGOST'S FIRST CRITICISM

The proposed design would appeal more to audiences in developing nations, but you could also sell it to people in first-world countries. Here's why. Firstly, it's true that framing investigative journalism as something dangerous and exciting may drive away a portion of the audience. As Bogost explained, people have grown tired of the dramatized, stereotypical journalist portrayed in the media. However, pay close attention to his wording: "Especially in our country." He speaks primarily about the reality of first-world nations like his native USA. This situation is where a possible cultural shock may arise. In developing lands, journalism is much different, and so is the role journalists play in them.

Tim Lopes is from Rio de Janeiro, Brazil. In this place, violence rules unchallenged. In 2015, one year before hosting the FIFA World Cup, Brazil registered statistics for violent deaths on par with war-torn Syria.[41] Such high criminality brings two consequences. Firstly, it overwhelms police forces. Cases often go ignored unless the victim is notorious and the situation goes viral, pressuring authorities to act. Secondly, some areas in Rio de Janeiro are deemed too dangerous for emergency services, including the police. Citizens report many crimes, but help never arrives. And the problems go beyond violence. Corruption is also commonplace.

In 2020, authorities arrested the Mayor of Rio de Janeiro City, Marcelo Crivella.[42] In the four previous years, they also charged six former Governors of Rio de Janeiro State.[43] They all faced incarceration for the same reasons: using public funds for personal reasons and accepting multimillionaire bribes.[44] As you can see, Brazilians must deal with a highly dysfunctional society, where people want

answers for the many cases the police ignore, either because of violence or bribery. This reality gives journalism a different role from what you'd see in first-world nations. When authorities avoid proper investigations, it's up to journalists to find the answers people seek.

In Brazil, the public's perception of journalists being, as Bogost puts it, "an enemy of the state" is still genuine. A significant portion of the population also sees the government as a foe. They're usually impoverished individuals. If they see criminal activities, they may report them to journalists, as they know police officers might ignore them.[45] That's how Tim Lopes' final investigation started. Citizens of Rio's shantytowns sought him to report several cases of sex trafficking since they had lost hope of authorities acting.[46] The way the design proposed here portrayed investigative journalism would probably appeal to this demographic. But you can also use this design in first-world countries by carefully choosing your priorities when marketing your project.

Emphasizing that this title is about playing as an investigative journalist may drive away some audiences in first-world countries, as Bogost argued. So, marketing Tim Lopes´game in these locations would require focusing on sex trafficking in Rio, his pursuit to end it, and the audience's role in unveiling this real story. Instead of using roleplaying as a journalist as the focal point in the marketing campaign, the focus would be the human elements in this experience and how a player can interact with them. Remember what Barlow said: "Creating a game that promises to explore a character rather than a space makes it much easier to sell the experience to a general audience." This approach would make audiences in first and third-world countries want to know more about this title.

CRITICISM: IAN BOGOST'S SECOND CRITICISM OF THIS PROPOSED DESIGN

"It's important to distinguish the work of doing journalism from its results. The process is as important as craft, practice, and education. But it's not something that an ordinary person needs to know about," he argued. He's concerned that the design proposed here is more akin to a journalism simulator than a storytelling experience. His primary criticism is that "a lot of journalism is just a kind of daily drudgery, which wouldn't necessarily, be very fun and compatible with games." He's correct in his assessment. Even an investigative journalist like Tim Lopes spent most of his days attending meetings, writing reports, and performing other unengaging duties. The design proposed here could feature critical details based on these tasks.

CRITICISM: ADDRESSING BOGOST'S SECOND CRITICISM

Tim Lopes' game aims for a compromise between realism and entertainment. It's not a journalism simulator. It tells a journalistic story through a video game instead. It's crucial to understand the distinction between these two things. The proposed design only features activities players would find interesting, like interviewing, interpreting information from documents, and piecing together an intricate narrative. Although this approach would make the game attractive to a general audience, it missed a vital detail.

This game could mislead people. It ignores the mundane parts of investigative journalism, possibly making them believe that being a journalist is glamorous, as Bogost suggested. Fixing this issue requires a simple change. There could be a log where players can read about the activities conducted "off-screen" in the game. For example, this title could share optional texts explaining the journalist's work

to gather the files players find in Tim Lopes' computer. This approach could leave out the uninteresting journalism elements while informing players of the laborious tasks behind the scenes, thus staying closer to the profession's reality.

Final Thoughts: The Road Ahead of you

Technology is constantly evolving, and so are the techniques to develop video games. New authoring tools and artificial intelligence advancements can help lower development costs, easing one major impediment to a journalistic title. Additionally, new ways of controlling characters can emerge, with the promise of being more intuitive, thus making gaming more accessible to newcomers. If this happens, journalists could be more confident in adding 3D navigation to their projects. Also, as smartphones become more powerful, developers will face fewer technical limitations for their projects to run on these devices. Slowly but surely, the sky may indeed become the limit.

As with anything related to technology, the use of video games in journalism is an ever-changing field. Eventually, you'll need to revise all the challenges, limitations, and ideas this chapter shares. You must also closely follow this industry, so you're always informed about new advancements that you may find pertinent to your future endeavors. But, for now, you can be confident that the information you've learned is highly relevant if you wish to create a documentary game. You must be mindful of this project's caveats, but your persistence may pay off. Your title may catalyze a movement that will change how people see journalism and video games.

As promised, here's a reading list:
- *Newsgames: Journalism at Play* by Ian Bogost, Simon Ferrari, and Bobby Schweizer
- *The Art of Game Design: A Book of Lenses*, by Jesse Schell

- *A Theory of Fun for Game Design*, by Raph Koster
- *Chris Crawford on Game Design*, by Chris Crawford
- *Chris Crawford on Interactive Storytelling*, by Chris Crawford
- *Video Game Storytelling: What Every Developer Needs to Know about Narrative Techniques* by Evan Skolnick
- *Slay the Dragon: Writing Great Video Games* by Robert Bryant and Keith Giglio
- *For the Win, Revised and Updated Edition: The Power of Gamification and Game Thinking in Business, Education, Government, and Social Impact* by Kevin Werbach and Dan Hunter

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THE FUTURE OF INTERACTIVE MEDIA. THE FUTURE OF DIGITAL JOURNALISM

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Go back to the future. Sci-fi movies foresaw many of the technologies you use today, like a smartphone or the ability to video chat with someone across the globe. Many of these "fictional" innovations, especially artificial intelligence (AI), will help unlock the future of interactive journalistic content, like virtual reality experiences, documentary games, and transmedia endeavors. So, you'll learn in this chapter how AI will enable you to create groundbreaking projects. It shares three predictions and then analyzes the technological leaps needed for them to happen.

Prediction #1: AI and the future of virtual reality journalism

Opposites attract. The artificial and the real have already intertwined, and one day, you'll be able to use AI to take your VR documentaries to new heights. To understand how, think back to *Clouds Over Sidra*.[1] It's a virtual reality experience in which a young girl named Sidra gives you a tour of a refugee camp in Syria.[2] Despite being an interactive experience, this project is primarily passive. You only follow the girl and look around. AI will make similar titles more interesting and immersive.

This technology will enable you to converse with virtual characters. Imagine you could speak with Sidra. Walking through her refugee camp, you could ask about life in that place and herself, boosting the experience's informative value. Such a premise may seem far-fetched, but talking naturally with digital characters is becoming more feasible daily. It may happen within two decades, as you'll learn later in this chapter. For now, read about another way in which you'll be able to use AI in journalism.

Prediction #2: AI and the future of participatory journalism

The gap between the press and its consumers has been closing due to technological advancements. Participatory journalism is the consequence. It allows public citizens to contribute to the news-making process. These contributions can happen in many ways. For example, the witness of an accident can record it and send that video to a news station. These citizens can also actively spread the news.[3] Artificial intelligence will intensify their participation.

AI-powered technology will enable journalists to integrate participatory journalism with interviews. Think back to *Clouds Over Sidra* again. The previous topic mentioned a future where it'd be possible to interact with digital characters like her. AI will enable journalists to take this concept further. They'll gather enough information on someone and use AI to create a virtual interactive duplicate. This approach will bring a breakthrough in interviews by bringing average citizens into the process.

People will interact with these virtual duplicates of real-life personalities to ask whatever they wish. Users will conduct their interviews and upload their most interesting questions and answers, sharing them with others. This approach will create highly personalized experiences. And virtual reality will be the best way to consume this content type. You'll sit in a virtual room with recreations of your favorite personalities to ask them anything. This prospect may sound exciting, but considering some limitations is crucial.

With great power comes big responsibility. Some people will try to use the experience maliciously. For example, they'll attempt to make the AI say something that the person it represents wouldn't profess, hurting this individual's image. Therefore, someone will need to write code that prevents such misuse of this technology. It'll also be necessary to share a disclaimer explaining that it's critical to differentiate the AI duplicate from the person it represents. You can't quote the latter on what the former said. Such a warning is similar to the one you learned about in the chapter about argumentative journalism, which brings you to the next topic.

PREDICTION #3: AI AND THE FUTURE OF OPINION JOURNALISM

You learned about procedural rhetoric in another chapter. It explained how you could opine through interactive systems. Although exciting, such an approach has a significant limitation: you must design and build every interaction people can have with your game. But AI will help you. One day, artificial intelligence will enable you to create an experience that adapts automatically to anything players do. Such an approach will increase your project's complexity, allowing you to make more sophisticated arguments. Most importantly, undertaking such a venture will become significantly cheaper and quicker.

The three predictions you've just read about may sound far-fetched. But they may be feasible quicker than you imagine. The following pages detail why. They share the thoughts of three men working diligently to unlock the true potential of interactive experiences.

A GROUP OF VISIONARIES

This chapter features quotes from exclusive interviews with three men. Chris Crawford is one of them.[3] He founded the Video Game Developers Conference.[4] He also wrote *Chris Crawford on Interactive Storytelling*.[5] Another interviewee is Jesse Schell.[6] He's the CEO of *Schell Games* and authored *The Art of Game Design: A Book of Lenses*.[7] He has given various talks about storytelling's future that this chapter will reference. Mark Darin also contributed to this passage.[8] You're familiar with his work from chapter nine. The insights from these three men were the foundation for the discussion you'll read in the following pages about the technological leaps necessary to turn the previously mentioned predictions into reality. But, before learning about the future, there's one thing you must understand.

THE CURRENT SITUATION

Interactive media is still evolving. This statement comes from Mark Darin. He believes this field has matured significantly in storytelling and can tell meaningful stories. But progress is still necessary, he reckons. He's in good company. All interviewees agree that interactivity is the future, but the world is yet to see a *truly* interactive digital experience. To understand this statement, you must learn one thing.

CURRENT INTERACTIVE EXPERIENCES ARE *NOT* INTERACTIVE

This statement may sound counterintuitive. After all, think of a title such as *The Walking Dead.*[9] You can choose how the story unfolds, so it´s interactive, right? No, according to Crawford. To understand his reasoning, read his definition of interactivity: "a cyclic process between two or more active agents in which each alternatively listens, thinks, and speaks."[10] This description highlights the problem with productions like this game.

They use a branching narrative structure to give choices to users. But exploring this story type is akin to walking through a maze. You have various options for where to go, but that doesn't make it interactive. No matter where you go, you're still navigating a predetermined path. The same holds for all interactive media. According to Crawford, developers must change their approach to reach true interactivity. But what would "true interactivity" be? The following topic answers this question.

An interactive experience must listen

Jesse Schell agrees with Chris Crawford thanks to an idea he learned from fellow game designer Chris Swain. In the early days of cinema, films were silent, and people only saw them as pastimes instead of art. Only when filmmakers started using sound in their projects, the audience began taking cinematography seriously, as the addition of audio allowed artists to tackle more complex and meaningful stories.[11] Movies had learned to speak. Schell believes that video games, and other digital media, will undergo a similar process.

Interactive experiences must learn to listen. Schell thinks that this step is what it'll take for this media type to reach its potential. He envisions a future where digital content understands what users write or say. The software would then process your input and output an appropriate reaction. Instead of relying on hand-crafted narrative branches, an AI understands and adapts to your commands.[12] Such a future seems grand, but one thing must change for it to happen.

Paradigm shift

Things must change. According to Crawford, video game developers build more assets to make more complex content with more choices and interactions. They write more branches, record more dialogue, create more animations, and so on. This approach severely limits the number of possible interactions, as they can't possibly build content accounting for every possible input. So, Crawford envisions a future where an AI automatically does this work as you navigate through the experience. You give a command. The content listens and responds. This prospect may seem absurd, but Crawford believes it's natural. After all, it's about using the essential feature of all digital content types.

They run on computational devices, like computers and smartphones. This statement may be obvious, but it's more meaningful than it seems. These tools are processing machines. They compute data, analyze an input, and give an output. According to Chris Crawford, developers have underutilized this feature when crafting their interactive experiences, as these rely entirely on hand-crafted content. Even for a video game like *The Walking Dead*, a writer wrote every story branch and a team created all the environments, animations, dialogue, etc., by hand. Crawford claims that this manual approach is obsolete.

He believes developers will only reach true interactivity when they start using the data-processing capabilities of computers to make artificially intelligent content that listens to your input, understands it, and gives you an output. This scenario may sound exciting, which begs the question. Why is it yet to happen? There are many answers, and you'll learn them in the following pages. Start with the biggest hurdle that developers face right now.

A TECHNOLOGICAL PROBLEM

Crawford's vision depends on your ability to converse with the content, either textually or verbally. But, technology is still far from enabling this, according to Jesse Schell. "Chris has been talking about that for 30 years, and it still seems quite far away. But it's coming; we're making strides in meaningful AI that can understand human communication, so we'll start moving toward that," he said.

Schell believes you'll have natural conversations with AI within the next two decades, but there's still much work before getting there. "People don't understand how many meaningful technological leaps we have to make," he said. According to him, the biggest one is making an AI understand the rhythm of a human conversation. As Jesse Schell mentioned during his interview:

> *"There's a rhythm to human conversation, and most people don't comprehend that, unfortunately. So, we have those rhythmic hurdles that we have to overcome, and we have these AI hurdles in terms of understanding the context of a situation. There's the problem of integrating all of that with meaningful storytelling. There are a lot of interesting examples out there about that. So, I think we will see gradual changes in this regard. I feel that by 2035, talking to AIs with a natural voice, in the same way we talk to a person, will be pretty normal by then. It's hard to say a lot sooner than that." – Jesse Schell*

His words are encouraging. But, creating an experience that listens to its users is only one part of the challenge. Emotion and drama are two weapons journalists wield nowadays to engage audiences in the age of distractions. Therefore, these professionals must start thinking today about how they'll use this technology tomorrow to develop digital journalistic content that will be more informative, emotional, and engaging. Thankfully, Crawford can help.

A KING'S PROBLEM

Imagine an interactive experience where you walk through a world full of virtual characters. An AI powers each, and you can have natural conversations with them. This premise could be of a future virtual reality documentary where you explore an exotic location, interacting with its locals. This idea may sound appealing. But it's

critical to understand one thing. Merely dropping people into a digital place where they can converse with virtual citizens is insufficient. To make this project appealing in the long run, it must feature the basics of storytelling: goals, conflicts, and rules. Crawford explained how he'd design a game with this triad in mind. You can adapt it to journalism, but you must understand it first.

"It'd be a game based on the Arthurian legends where the player is King Arthur. The problem is: all the knights around the table have different personalities, needs, and desires," Crawford explained. All these characters are AIs that'd be in constant conflict. Amidst all this, Mordred revolts against you. You must talk, negotiate, and persuade all knights to unite under your leadership and extinguish Mordred's rebellion. Will you stay as the king, or will Mordred dethrone you?

Your interpersonal skills will determine your fate in this story. "I think this is a good way of expressing the challenge of dealing with several different people with different needs and desires and emotionally welding them into a single community," concluded Crawford. You can use the same idea in journalism.

Imagine you're working on a transmedia project about diplomacy. One of its goals could be highlighting the difficulty of politicians' work. They must navigate highly complex political networks to ensure their people's best interests prevails. Your project could feature an interactive experience where users must negotiate with other characters to get aid for their country. Such an endeavor would educate people on the complexities this job entails. There's a critical lesson from this example.

The rules you learned about creating meaningful choices in *The Walking Dead* and *This War of Mine*[II] still hold. You must design the experience focusing on people, placing users in the middle of a conflict between opposing parties and striving for morally gray choices, from which they can learn about the topic and themselves. "No passive novel can ever accomplish that," said Crawford. But, for this prospect to become a reality, these AI-powered characters must have believable emotions, bringing a new problem.

THE HUMAN ALGORITHM

How can you make a robot feel emotions? This question is as old as time in the field of artificial intelligence. The answer is simple in theory, but the execution would require an arduous undertaking. Chris Crawford offered his thoughts on the subject. "You need to think in terms of processes. What angers a person? What causes a person to lie? What are the psychological processes at work here? What equation creates anger? This is our problem," he explained. You can conclude two things based on his insights.

You'd need to develop a set of conditions for triggering each emotion. Imagine anger, for example. As you meet each criterion, this person gets progressively angrier. Writing this code to make the AI react believably would be difficult, but it'd be only half the task. You'd need to tweak each character's code. After all, different people can have diverging personalities. What makes one person happy might sadden another. You can't copy and paste the code across all habitants of your virtual world. Everyone has nuances, after all, and so does language. It's essential to understand its role in creating believable AI interactions.

A SUBTLE PROBLEM

Human communication is complex. You may believe speaking is simple, but your words have plenty of nuances: yours and everyone else's. People lie, use sarcasm, and often leave things implied but never spoken outright. Creating an AI that understands all the complexities of human interaction is yet another big challenge that programmers must overcome. Therefore, AI-powered interactive journalism experiences will likely start with textual conversations. Such an endeavor would be highly technical, which may bring a question to your mind. What would the journalist's role be?

A JOURNALIST'S JOB

One question may have come to your mind. Will you have a job if an AI drives the narrative? Chris Crawford answers with a resounding "yes." Although you can delegate many tasks to an algorithm, some still require human sensibility. He said: "There are certain things in storytelling that are just art, and a computer will never do them. Those have to be done by an artist, not a programmer." The challenge is discovering which parts of the experience are artistic:

> *"For example, there are many things we can say that are mechanical. Characters reveal through choices; a story is a sequence of events, so storytelling is putting events together in a sequence. They must be causally related and have a logical connection, but the dramatic part of the connection has to come from the artist." – Chris Crawford*

How can you separate the artistic and the mechanical aspects of storytelling? Discovering this balance is vital, according to Mark Darin. He believes humans must design the experience's structure and the conflicts users will explore. According to him, delegating these tasks to an AI can have disastrous consequences. The project will mostly

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resemble a toy. It can lead to interesting interactions, but it'll fail to move you emotionally or say anything relevant. But, despite these challenges, Crawford remains optimistic. "I'm confident we can solve this problem." This industry is indeed getting there.

A BIG STEP FOR GAMES AND A GIANT (FUTURE) LEAP FOR JOURNALISM

These changes will take time. The likely scenario is a gradual adoption of AI-powered content in journalism as this technology evolves. But you can already see some attempts at fulfilling Crawford´s vision. So far, Ken Levine is developing the most promising. You remember him from the interviews featured in this book.

He gave a presentation in 2014 announcing that he was working on a new concept for video game storytelling. He calls it "narrative Legos."[14] To understand it, first, remember what Legos are. These toys give you a box full of primitive shapes, and it's up to you to build any object in your imagination by combining hundreds of these small blocks. Ken Levine used this premise to create the first step toward storytelling's future.

His concept involves bringing a writer to build a library of short story fragments, including their characters, beats, and worlds. Once this repertoire is complete, the game can arrange all these elements in any order, creating a new story. And the work is far from done after you start playing. Throughout the experience, this title changes its narrative. Based on what you do and say, the game understands your input, searches for appropriate responses in its library, and uses it.

This approach offers a middle ground between the artistry of a human and AI. And according to Ken Levine, this design philosophy has another benefit. You can reuse the small narrative fragments you create for a game in other titles. With that, the content pool available enlarges with each project. According to Ken Levine, this is vital for his design, as it'll allow him to make games with endless narrative possibilities.[15] It's encouraging to see such initiatives, even if they still require significant hand-crafted content. It's a step in the right direction. But Chris Crawford believes developers must take a crucial step to ensure this field will one day feature 100% AI-driven content.

As easy as 1,2,3

According to Chris Crawford, for the widespread adoption of AI-powered content, developers must create tools that make it easy for the average user to create their characters and interactive stories. Crawford is already working on such a project, but with limited success. He admits that his software, *Storytron*,[16] failed to fulfill his vision. However, he continues to devote his life to developing software enabling average users to create interactive stories and characters. With that said, even journalists could use this technology.

Final thoughts

Artificial intelligence is already in journalism. Journalists use AI to analyze data, write simple articles, and more. But, they can go further, creating interactive experiences that users can tailor. You've learned how technology will change storytelling in the coming decades. The advancements described here may seem far-fetched, but the efforts to bring them to fruition are ongoing. Once they become a reality, you'll see an integration of AI-driven content with narratives. This trend will also influence journalists' real-life stories but requires further research. Perhaps another book.

GAME OVER. CONTINUE?

Remember one thing. No, video games aren't the Holy Grail that'll save journalism. But they can be a valuable asset in your toolkit as your profession continues to invest in digital experiences. Likewise, this manuscript never intended to argue that interactive media will fully replace passive ones.

Interactive experiences are more mentally taxing than their passive counterparts. As Mark Darin mentioned, sometimes people only want to relax and wind down after a long day. They're tired. They may avoid hyper-stimulating media. Additionally, some individuals may prefer passive content.

Despite the growing popularity of interactive experiences, traditional media still has a sizeable presence, and you must recognize it. Admittedly, its "market share" is shrinking, but it isn't going anywhere for now.

Such a reality, however, doesn't mean you can become complacent and stop thinking of novel ways to tell stories in a digital setting. Especially considering the age of distractions in which you live. It's in this scenario that video games can help you.

But, the research on how video game storytelling techniques can help journalism must be ongoing. As technology changes, it enables game developers to build more ambitious and complex words, necessitating different design and storytelling techniques to communicate with players effectively. As these change, there has to be a reevaluation of how they can help journalists engage people.

There should also be an ongoing ethical debate. Your professional oath demands neutrality. But, many of the techniques mentioned herein address topics like empathy and dramatization of events for engagement. When do you take things too far to the point of turning journalism into propaganda? The answer can fill an entire book.

This manuscript's author would like to express his desire to pursue a doctoral degree to conduct this investigation and give readers a better understanding of the role that video games may play in the future of journalism. This endeavor would need a different approach. While the current research focused primarily on video game storytelling, the next would emphasize interviewing journalists and digging deeper into journalism theory to understand the most ethical ways to implement video games.

PART IV

INTERVIEWS

INTERVIEW WITH KEN LEVINE - CREATIVE DIRECTOR AND WRITER OF 'BIOSHOCK'

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CAIO: Considering that you have experience with films, were there any lessons from them that you could apply to the environmental storytelling of *BioShock*?

KEN: When you start writing films, you learn that the words on the page matter less than the images on the screen. Even more so with games. The player's busy. He's running around, shooting, and trying to understand the game. So, he takes in verbal information at a low rate but absorbs visuals much more quickly.

The amount of storytelling you can do with visuals is much higher. So, we fill the visual space as much as possible. The result is that the player walks away with much information about the world, more than they would with dialogue or cut scenes.

CAIO: How do you decide the best way to share a piece of information?

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KEN: The first step is figuring out what story you want to tell. These can even be little stories, not necessarily the overarching plot of *BioShock*. For example, a woman lost her child, who became a little sister. Sometimes we tell it in one beat, and sometimes in multiple.

With each beat, you have to decide the best medium. So, you look at the candidates you have: audio logs, direct dialogue, or things in the world. But you also need to consider how vital that beat is, and then you have to budget it depending on its importance.

For example, the opening descent to Rapture was a critical beat. So, we spent a lot of time and energy on it. But in, in general, there's no actual process. You look at each story beat and determine how to tell it best. What else is going on in the world? How much of the gamers' attention will we have at this moment? These are critical questions you should ask yourself.

Then, you decide. But with each decision you make, you must maximize the chance it will impact the player. For example, you must make dialogue quick, short, and punchy. If players start listening for too long, eventually, they tune out.

CAIO: *BioShock* gives players the freedom to explore Rapture. How do you ensure that they will want to do that?

KEN: Reward them. When people do something, they'll stop doing it if there's no benefit. So, ensure you have a world with many exciting stories to tell. That's the hard part. And then, you must distribute those story elements at a high enough frequency to make players feels like they'll find something cool if they explore. Otherwise, they'll question why they're spending time on your game. As a developer, respecting the audience's time is a premium responsibility.

CAIO: Was there anything from *System Shock 2* that you tried to improve in *BioShock*?

KEN: I wanted to dig deeper into environmental storytelling, making the world feel like a believable space. We did what we could in *System Shock 2*. But we had minimal resources, and *BioShock* was the first time we had the means to do what we wanted.

But building a world is hard work. You have all these conversations with ideas in a meeting. Then you ask yourself how you communicate them to the audience. We can't give them our meeting notes. And that's the challenging process: taking all those ideas and then deciding how to share them with players. Many people think you have a lot of this stuff figured out on the first day, then you execute. No. You have basic ideas at the beginning, and they evolve.

CAIO: You must have faced a lot of hardware limitations in *System Shock 2*. Creating a believable world must have been difficult with such limited technology.

KEN: By the time we got to *BioShock*, gaming consoles were powerful enough to create a convincing world. That wasn't the case in *System Shock 2*. Hardcore gamers can look at it and find it believable. But it didn't look compelling to a mainstream audience.

I remember when my parents saw *System Shock 2*. They weren't gamers, and they were older. I don't think they even got it. It was hard for them to see all those polygons and to use their imaginations. But, when we got to *BioShock*, they didn't have to use their creativity much. They understood what we wanted to create a lot more easily. Of course, everybody can use their imagination. But when in *System Shock 2* you only have 500 polygons to render a scene, it takes a lot of work to visualize it with such a lack of detail.

CAIO: Using my imagination was what attracted me to *System Shock 2*. I found it similar to a book. When reading one, you read the descriptions and imagine them. How you visualize the action is going to be unique to you. Likewise, how you imagine the environments in *System Shock 2* is unique to you, making this game a more personal and compelling experience.

KEN: That's an interesting observation. It's probably true. You see that a lot, with many games returning to retro style. People are getting more comfortable with that. They don't demand the constant upgrade of graphics as much as they used to, especially in the independent game space. But I like your observation a lot, Caio. It's a good one about books.

CAIO: Even in *BioShock*, imagination plays a big role. When you arrive in Rapture, its downfall has already happened. And there's a lot of environmental storytelling. When I see this narrative type, I try to imagine these events.

KEN: It's hard for us to match your imagination. But I try to respect the player's freedom and agency. They'll fill in more gaps if they're active. If they're passive, they won't.

CAIO: *BioShock* uses many small fragments to tell a larger story. How did you approach writing a script for this game?

KEN: It's different from writing a movie. For a film, you sit down and come up with your three acts. Then, you write and rewrite. You're working from this 120-page document and keep refining it. In a game, you're working in a highly fragmented way.

You don't sit down and write the script from start to finish. I don't. There's probably not a script for *BioShock* or *BioShock Infinite*. There are hundreds of documents with dialogue in them—different files with each covering an area, and I need to write them out of order.

You're constantly developing the game. You're frequently going back and changing things. So, you need to rewrite and rerecord the dialogue. It's highly fragmented, at least in my studio. This process is different in every game, and we try to figure out how to do it, but we always do it differently. Each title has specific needs.

I wish there was a structured process like there is with film, but that's almost impossible. Our games aren't linear. You miss a lot of it. There are so many different mediums: audio logs, cutscenes, dialogue, there's no script for all that. We have a meeting and we talk about what we want. And I'll say, "it would be great if we had a guy there and he's lying down and there are some flowers next to him."

It comes together as a game when we put it in the world. It never really comes together on paper as in a script. Nobody will read our notes and say, "oh, this is great. Let's go. I can't wait for this." It's so fragmented. It's almost impossible.

CAIO: How do you ensure the story remains coherent?

KEN: Play it. That's all you can do. You try to play it as if you've never encountered this thing before. But doing so is hard because you're very intimate with the game.

I find that that's not easy, but it's the only way to do it. And you need to understand one thing: what's on paper doesn't matter. I write dialogue ahead of time and then go to the recording booth. If these lines aren't working for the actor, then it's my job as a writer-director to fix it in the room.

And then you could be in a situation where you record the line with the actor, but then you put it into the game and realize it isn't working well with the visuals. You tweak it. But you need to play like you're the player. Don't, don't give yourself special privileges because it's your work. And be hard on yourself. You're trying to make something people will fall in love with.

That sounds like something that can make you lose many nights of sleep. But I never lose sleep over it. I know failure is an essential part of the process. Make the game until you run out of mistakes.

Anything you work on it's going to be flawed, especially the narrative. It's always terrible until it gets good. You must get comfortable with failing and understanding that that's just part of the process. It doesn't matter the state it's in right now, it matters. You know where it's gonna go is what matters.

CAIO: I can relate to that. I took playwriting classes back in high school in America. What you said is true. Failure is really important. I failed a lot.

KEN: I'm still failing a lot. You're going to fail when you're my age. That's the sad truth of it. If you ask me a secret to the success I've had, it's because I don't hold onto my ideas. I'm willing to dismiss them and throw them out. That's an essential thing for any artist to understand. They're an idea-creation machine. 99% of them are going to be bad. And then that 1% becomes gold.

CAIO: Audio logs are a good way of providing a background story. How do you write them without turning them into dull exposition dumps? How do you determine their ideal length?

KEN: As short as possible. That's the ideal length for any writing you do. So start the scene as late as possible, and get out as soon as possible. A lot of writers make the mistake of starting early. So, they dive in before the critical part of the scene, and they spend time having characters talk about things that aren't necessary. Everything you write the first time is going to be too long. And rewriting is not just about making it better. It's mostly about making it shorter.

By making it shorter, you're gonna make it better because you're gonna start cutting the stuff that doesn't matter. Audio logs are the easiest things to write in the game. It's the most traditional type of writing. It's a radio play.

Sometimes the problem is I have too many ideas I'm trying to get across. So what's the core idea? Let me scrap the other ones. Or lemme put them somewhere else in a different audio log. Or, maybe they don't need to be there at all. It shrinks, and it gets better.

Usually, it gets better every time it shrinks. Having the actor do it is the next critical stage. The actor will tell you whether the lines are good. If you have an excellent actor who can't do the lines, it's probably because they aren't honest.

I've tried to make an actor do something, and they couldn't do it. And usually, that means that I should be rewriting the dialogue to get it in their voice. I'm very flexible as a writer in the room, changing things. Some actors still want to perform the line as written, but also, you have actors like Troy Baker. He'll co-write in the room with you. He'll take some dialogue and start improvising off of it.

But sometimes, the lines are particular. I'll have something I want to convey with exact wording. For example, in *BioShock Infinite*, "I'm not afraid of God, Elizabeth, I'm afraid of you." I wanted this line performed as written because it set up a lot of themes in the story.

You must listen to an actor and work to the strengths of the voice, being flexible. But it's a long process. You have to be open to the thing you wrote, not being gold. But, it can become gold if you, if you're open to changing it and you're open to working with people.

CAIO: Were you afraid that players wouldn't understand *BioShock?*

KEN: We did a focus test a few months before we release. It went terribly. People did not get it; they hated it. We listened to what the focus testers were saying, and we realized there were just some simple things that we could do to convey the story better.

They didn't understand who they were and their role in the world of *BioShock*. So, we added that scene inside an airplane. Initially, the game started with you in the water after the crash. But we created that scene on the plane at the very beginning with a little voiceover from Jack.

He looks at his wallet, and he shows you his face. You get a sense of the period and so on. This scene solved a lot of problems. Before that, the audience was like, "we reject this." When we did the focus test, the audience said, "this is stupid."

My theory was about the fact that we hadn't done a good job setting up who the character was. Once we included the airplane scene, the opening of the game became what you see today, and it worked.

People felt comfortable saying, "I'm this guy on this airplane. It's 1960 and so on." Um, and then once they had that information, they could take all the weirdness of Rapture in a little easier because they had this contextualization.

CAIO: That's quite a turnaround. Most people hated the intro, but then you changed it a little, and it became one of the most memorable of all time.

KEN: It's the team. This moment is one of my proudest. We all took very harsh criticism, and instead of saying the audience was stupid, we respected them. They wouldn't tell us how to fix it, but they didn't like something.

I'm proud of how that went. It was a great day after a terrible night for the team. We got that feedback, reacted, and fixed it. And then, the team felt gratified to be able to fix the problem.

FIRST INTERVIEW WITH MARK DARIN - WRITER OF 'THE WALKING DEAD: SEASON ONE - EPISODE TWO'

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CAIO: What is the biggest challenge of writing a branching narrative like *The Walking Dead*, and how do you overcome it?

MARK: There are a lot of challenges, including keeping your story in scope and tailoring it to be about choice, but the most challenging part is a lot more subtle than that. It's determining what decisions to write so your story and its branches don't get away from you. They should support the central theme.

Once you understand your story and what the player's responsibility is within that theme (More on that later), your choices and story branches will become much easier to write because you already know what you are writing towards.

CAIO: What are the artistic and creative opportunities a branching narrative offers that a linear story does not?

MARK: A branching narrative is like an open-world video game. Without a set linear path, the player is encouraged to explore, but instead of exploring landscapes, they explore ideas and relationships. Even if the ending location is the same every time, the journey can change drastically. And it's in that journey that we learn the most about ourselves.

The most exciting thing an interactive branching story can do is present opposing ideas and put the player in the middle. The best version of this concept is when there is no obviously correct answer, and you have to ask yourself some tough questions that you may have never considered otherwise. Through these moments, the game learns who you are, and you learn a little about yourself as well. Skilled narrative designers can then continue to use what the game knows about you to increase the stakes in the story, making the drama even more personal.

CAIO: Do you already consider the choices when outlining the story beats of an interactive narrative? Or do you only start thinking about them later in development? In which part of the creative process do you begin to plan the choices?

MARK: You HAVE to consider the choices EARLY. Long before writing the script. You don't need to have all the options figured out, but you have to deeply understand the foundation that your story will ultimately be ABOUT these choices. You also have to understand the story's theme and the player's responsibility in it.

For example, *The Walking Dead* season 1 was always a redemption story. Lee had made choices in his life before this story started that led to him becoming a murderer. When the world changed, he could begin anew. This was the theme. The player's responsibility to the story was to determine who Lee would become by making morally ambiguous choices. We know all of this before we start writing.

The magic of *The Walking Dead*, though, is Clementine. She is a little girl that you want to protect, but she's more than that. She's the lens through which you get to see yourself. She never judges you; she learns. And observing who she becomes keeps you in check as you, the player, makes choices in service to the story themes.

CAIO: What makes a choice interesting? Please walk us through your thought process to determine how to implement a choice and whether it is even worth implementing.

MARK: A choice is most interesting when there is no right/wrong answer and when it has a personal emotional impact. One of the least exciting choices you can present in an interactive narrative is whether to do something or not. The "...or not" choice is typically the least exciting path and takes all the drama out of the story or would logically lead to instant death!

So,f make sure that the situation dictates that the player character is committed to doing something, either because there is no narrative alternative or because the course of action FULLY aligns with the character's motivation. With this established, you can choose your decision's How and Why.

CAIO: Even if you try to give players as much choice as possible, it is impossible to account for every viable alternative. This scenario means you can end up in a situation where the player may want to say or choose something, but the choice is unavailable, leading to frustration. How do you prevent that from happening?

MARK: It's not about giving players as much choice as possible. It's about giving them options that matter to them, shaping their character and relationships. Narrow the choices to be specific about an idea. You leave the door open to be misaligned with the player when they are too broad.

For example, don't have a character ask, "If you could go anywhere, where would it be?" That's too broad and could leave out things the Player might want to say. Instead, allow the NPC to talk about their favorite place: "I love Paris. I went once with my family when I was young." Now you have a much narrower topic to make choices about: "I would love to go to Paris one day!". "I don't know much about other places." or "I don't like French things."

CAIO: Good pacing is vital for a story to be engaging. In *The Walking Dead*, there are many parts of the game where players can explore large environments containing various intractable characters. How do you design these areas without slowing down the game's pacing?

MARK: This is always a challenge. The key here is to fully understand your story themes and the player's responsibility to those themes. That helps to craft your interactions to have motivation. For example, in Season 1 Episode 2, Lee and some friends return to the Motor Inn, where all the survivors are camping.

After the initial return, the player's only responsibility was to "check in" with the other character and learn what they'd been doing. This moment is where the pacing slowed to a crawl. "Checking in" was not aligned with the theme of the episode, hunger, and the player wasn't responsible for achieving anything through this action.

Instead, we changed this scene to Lee handing out the daily rations knowing there would not be enough to feed everyone. Now we have a motivation directly tied to the story's themes. And the player knows what they must accomplish and now must make decisions with high stakes.

The gameplay mechanics have stayed the same. You will still walk around the environment and click on various characters, learning what they've been up to since you last saw them. But now you have an added responsibility that could affect the relationships you've been building.

CAIO: How difficult is it to make a conversation flow well when players can choose how the dialogue goes? How do you prevent conversations from sounding unnatural?

MARK: It's about practice and experience. A good writer can make a conversation sound natural, whether it's a linear or branching story. It's also about following the guidelines I mentioned above and don't try to offer a wide range of responses. Make sure you narrow those choices down to specific ideas so your conversations.

CAIO: What is the biggest lesson you learned while working on *The Walking Dead?*

MARK: Three things:

1- The game always says YES.
No matter what choice you give your players, ensure that the game never says "NO" to it. If the game tells you that you can't do a thing, even though it offered it as a choice, remove it. It isn't one!

2- NPCs are best when they internalize the way you treat them instead of responding outwardly.
There were a lot of instances where I would allow Lee to say something that Kenny wouldn't like. The obvious play would be to make Kenny hate Lee, but this is problematic. Either you, as a player, don't care, or you start focusing on how to win Kenny back, which is not the story's point.

Instead, Kenny would internalize the things you say and starts to see himself differently as opposed to seeing YOU differently. It's a subtle difference, but it changes how the player approaches the interactions with NPC characters.

3- Conversation can be gameplay.
I admit that it took me a long time to understand what we were making. I was used to crafting puzzles for old-school adventure games and believed that the puzzles were the gameplay and that the players would be bored without them. I didn't understand how dialog and choice could be used to create a compelling interactive experience.

SECOND INTERVIEW WITH MARK DARIN - WRITER OF 'THE WALKING DEAD: SEASON ONE - EPISODE TWO'

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CAIO: In a game like *The Walking Dead*, you control the main character instead of watching him on screen. How does this shift change your writing process when creating an empathetic protagonist?

MARK: It's interesting because Lee has his backstory. We wanted to create a character with a backstory that people could relate to. We've all been in a place where we've made a mistake when overwhelmed with emotion and want to make amends for it. That's where we wanted to start.

You want to be a better person and everybody can relate to that. So, we started building our story kind of from that. Now we can surround this character with many scenarios that are gonna test him and the player.

CAIO: Did you consider implementing a rewind feature people could use to go back and make a different choice?

MARK: No. That was something we didn't want. We wanted this game to be about the choices you make and how they affect the people in the world around you. And you can't just take back those choices. But at the same time, we strived to create situations where you were going to make a choice, and even if it had a bad outcome, we wanted you to say, "I would have made that choice again. It was a hard choice. Bad things happened, but I believe in my choice."

CAIO: How do you deal with inconsistent player choices?

MARK: That is something we discussed a lot. We wanted it to be messy. You want inconsistent player choice. We wanted people to make decisions that affect their following issues. They may play as somebody who's callous and uncaring, and then the next moment, they're nice to the person they were mean to.

That's inconsistent, but making it messy was one of the gameplay pillars so that there's never a clear path in how you'll accomplish your goals. We wanted to make things messy and ambiguous.

CAIO: Lee dies, regardless of your choices. Was the team concerned that people would feel cheated because their decisions did not influence the game's most meaningful moment? Did you consider an alternative ending where he survives?

MARK: No. If we had done that, it wouldn't have been the most meaningful moment of the game. We wanted you to have your journey through the game and your choices to influence the relationships and characters around you. So, making Lee survive was never a consideration. Doing so would have altered the journey, and it would have changed what the story was about.

We had a specific story to tell. The journey was always going to end in the same place. The path you took to get there and how it changed the people around you is what we wanted to emphasize.

CAIO: Is this philosophy specific to *The Walking Dead*, or should every branching narrative follow it?

MARK: It changes based on the game, depending on its goal. If your mission as a game is to provide different endings, which are the story's hooks, then it's okay. But it's easy to get it wrong.

Look at that *Black Mirror* episode, *Bandersnatch*. They used a choose-your-own-adventure style, going for that sandbox where they wanted to experiment with different choices and then determine the ending based on them.

It was fun to play. It was interesting to experiment with it and see where it would go. But at the same time, I never got invested in the story because the different paths you could take never became cohesive as a single story. It's a toy. It was unsuccessful because it didn't know what it was trying to say about itself.

There's no correct answer to that. Another problem is that having different endings and paths also blows up your production because you've got to create more diversity in the types of stories you want to tell and put more resources into making all the alternatives.

It can get complicated and blow your budget high. But you can control that too. You can make it a small game with multiple endings. Um, it's just a different type of experience.

CAIO: Do you think more studios should invest in episodic games?

MARK: I'm not sure. I'm all for shorter games. But one downside of episodic storytelling is that it's a much greater chore to jump back in if you fall behind. It can feel a lot longer, even though they're shorter.

I'm all for shorter AAA games, especially narrative-driven titles. I would love to go through a 20-hour game instead of a hundred-hour one if the former offers an incredibly refined experience instead of being padded out with gameplay and challenges that I dislike.

CAIO: Episodic storytelling also has the advantage of seeing how people react to the first episode before the second one comes out. How much did player your feedback from the first episode influence your decision-making in the second?

MARK: Only a little. When episode one was released, we were finishing episode two. So we didn't get feedback until midway through episode three. But we performed some focus group tests to get feedback from them on episode one. We also used that feedback in episode two. Most of the feedback we got at that time was about which characters they liked and which they didn't.

For example, people hated Larry in episode one. So, in episode two, we wanted to give him more depth so that you could sympathize with him when he was going to die.

We portrayed him as a man who cares deeply about his daughter and will do anything to protect her. If we hadn't done that, nobody would care if he was going to die, and everybody would crush his hand immediately. So that was some of the feedback we were taking at that time.

CAIO: Given the opportunity to go back in time, would you change anything about the game?

MARK: Only little things I would nitpick. For example, the first episode opens with you in a police car. You can respond to the cop in a couple of different ways. But no matter what you've chosen, Lee doesn't express what users want to express

Those are the types of interactions that I would go back and change to ensure the character's intent doesn't override the player's.

CAIO: Will we see more forms of entertainment using branching narratives? Or do you think linear experiences will always be the dominant force?

MARK: I don't know if it'll always be the dominant force, but it'll be for a while. But we'll see more branching narratives in spaces like video games, TV, and movies. But I wouldn't expect to see regular television series becoming interactive. It's such a passive medium.

We will see interactive episode events become more regular. We'll have those special episodes that are interactive episodes because they can build an event around that.

They can say, "this is going to be your episode. This is the one that you get to interact with. Stay tuned for this special episode." And there's a significant buildup. That's nice. It feels like an event. And don't I have to sit down and do ten episodes of interactive viewing with my remote control, which is not even the best medium.

But as VR becomes more popular, that's the space for branching narratives. I would love to see more VR games about dialogue and interaction with people because you can make choices. You can use voice recognition to speak to characters and then have them talk back to you and immerse yourself in an interactive narrative with a branching dialogue in a way that we haven't before.

CAIO: How do you assess the state of video game storytelling?

MARK: I love that developers are embracing single-player, narrative-driven games. It's only been within the last decade that they've come back. They fell out a while back in favor of emergent storytelling.

I would love to see more of the divergent branching narrative coming out of that. I have yet to see a ton of it. Still, there's a lot of potential in getting these AAA games like *Uncharted*, *God of War*, and *Spider-man* and adding some of the things we learned at Telltale. Things like the branching dialogues and how to affect your character's relationship with other characters without having 50 different endings and blowing up the budget.

That's coming. I'm excited about the potential to put a branching narrative within these things. And it doesn't have to explode. It has to be enough to give the player a feeling of agency over how they exist in the world.

CAIO: Do you think that AI-driven stories could have less emotional impact?

MARK: I do. For it to be successful, it will need to be a hybrid with AI driving unique scenarios and responses and their unpredictable outcomes. However, you still need to have talented, skilled people who are crafting and understanding the unique emotional impact and how to craft that. And having it coming from a place of personal expression is what is going to make that special.

CAIO: Do you think we can have a world populated with AI characters and have stories emerge from their interactions?

MARK: It's possible. But we're a long way from that. Right now, it would feel like *The Sims.* You have these wonderful characters, and we'd put them together in rooms, and we see what happens, and it's all AI-driven.

It's a wonderful sandbox to poke at. It's a fun toy to play with. But I'm not yet at a point where these wonderful characters are creating stories with any poignancy. There's no reason to tell these stories. There's no message I want to deliver from a personal place to tell these stories.

Maybe AI can get there at one point, but I wonder how genuine it will feel when it's being simulated. I wonder how it will be embraced if we know it's being generated from an AI and it's not necessarily from a unique individual perspective and coming from a place of that human connection, where the stories are telling me about humans.

And that's why I resonate with it. I don't know if the scaffold going to be an interesting future. Yeah, nobody knows for sure what's going to happen. And that's the interesting thing about debating those, uh, those topics. I just hope that whenever that happens, I'm still, uh, on earth. I'm still waiting to see that happen because I love games and I really see them with huge potential.

INTERVIEW WITH NAVID KHONSARI - WRITER AND DIRECTOR OF '1979 REVOLUTION: BLACK FRIDAY'

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CAIO: Why did you decide to make games about real life?

NAVID: This answer has two parts. I was fortunate enough to travel the whole country when I returned to Iran. I went to this small town in northern Iran. There were only two PCs, and as I'm the only Iranian that's ever been credited on a *Grand Theft Auto* game, many young people asked for my autograph.

And this happened when the United States invaded Iraq in 2006, so people in that region weren't in love with the US. But a young girl told me, "America must be an incredible place to live." And I was shocked by her statement. And when I asked her to explain herself, she said that when she plays *GTA*, she likes to jump in the car and drive wherever she wants.

She can listen to whatever radio station she wants in the game. She goes and buys clothes, works out, gets fast food, and does these things, which are not liberties that she has in her country. And so when I was thinking about that, I realized that video games and digital experiences are the closest things we can do to put somebody in another person's shoes. And yet no one has been looking towards what we could do with real-world events. And that intrigued me.

CAIO: Why do people don't use games to tell real-life stories?

NAVID: It isn't easy. There needs to be more education on telling a video game story based on actual events. We are in an exciting place here at iNK Stories. We have done feature documentaries where one of our partners is a visual anthropologist. We understand the research that truthful storytelling requires and things like interviews, photo references, and everything you need to do to build that real world.

At the same time, we also understand key pillars of game design that will make that experience engaging for people. So part of it is that there are not enough people with expertise in these two worlds to create games based on real events.

Also, compared to making traditional games, it's much more difficult. You have to stick to specific parameters. You need to stay true to history. As a result, you force and challenge the design since it needs to be factual and engaging to be on par with other entertainment.

CAIO: What was the biggest challenge of telling the story of the Iranian revolution through a game? How did you solve it?

NAVID: Ensuring that we told a truthful story while still engaging people. Doing so is a delicate balance. And that's where we've seen video games about actual events continually fail. They're so focused on trying to tell you exactly everything that happened that they forget that this is an interactive medium.

CAIO: How did you overcome that challenge?

NAVID: I knew the story quite well because I'd grown up in Iran and our initial interviews helped the rest of the teams to understand story's the core themes.

We also did a lot of testing. Paper prototyping is much more successful when it comes to interactive storytelling than jumping into gray boxing. But we also knew that this was gonna be a challenge.

CAIO: Interestingly, you mentioned gray box testing. Many reviews praised the detail in your game's environments. How did playtesters react to gray box testing when they played the game without seeing its world?

NAVID: We did gray box testing primarily for the mechanics. For example, photography was something that we gray-boxed. We did the same for the navigation through the streets. After working on the mechanics, we felt confident in creating interactive environments. Concerning the world, it was a matter of determining how much content we could put in without frame rate issues on phones.

So, our testing process combined three elements. We used gray boxing to test the game mechanics. We used *Twine* software to see if the choices had value, in addition to paper prototyping.

CAIO: How did you decide which elements of the Iranian culture you had to show people?

NAVID: We listed the cultural elements that non-Iranians find interesting but familiar. We included things that appeal to everyone, regardless of nationality, like food, cinema, pop culture, and music. These things fill the game's streets.

We also wanted to make people see the difference between Iran today and Iran then. In 1979, women weren't covered up, and there were other religions. People had this religious freedom, for example.

CAIO: What lessons did you learn making that game? Would you change anything about it?

NAVID: I wasn't happy with the civilians. We didn't have the funds or the time to make everything as beautiful as I wanted.

That's it. This story was strong and resonated with people. But I wish we had the funds to do two more and finish the trilogy.

CAIO: Was it difficult for you to capture the intensity of the revolution in a virtual environment?

NAVID: No. Creating intensity is a combination of tools, like the ambient sound design combined with music. But more importantly, the performances added a lot of intensity. Tension isn't necessarily about something that is happening. Tension is something that you feel from several elements that make you anticipate something.

CAIO: Were you happy with the reception your game received?

NAVID: I was thrilled with the way that people reacted. But the game got banned in Iran, which was disappointing. We localized it in Farsi and provided it to the Iranian market for free.

But we had people worldwide embracing this game. They told us they love the game's emotion and spirit. Also, some American kids with Iranian parents had never discussed the revolution.

They could now sit down with their parents and play this game, which opened up a whole new chapter of communication. These are precious elements that we got from this game. Also, we're proud that the game was a small indie title that was nominated for Game of the Year at the Dice Awards. All the critical acclaim was phenomenal.

CAIO: Will AAA studios start making documentary games?

NAVID: The AAA studios are also changing. There are not as many of them that take risks. The budgets are much bigger than what they used to be.

So, all the AAA guys are just doing endless sequels. I haven't seen many new IPs in the past two or three years. They're focusing on multiplayer online and established intellectual properties.

Will they do it? Maybe, maybe not. Also, live-action, gaming, and interactivity are all merging. So you might not see it coming from the AAA publishers. But, you might see it coming from mainstream media, like Hollywood and the TV documentary folks.

CAIO: Why was the game in the third person?

NAVID: Because it's a cinematic experience, first person is not a cinematic camera. The third person allowed us to go in and out of the dialogue choices in a way that was more reflective of cinema.

Also, we were motion-capturing so many of the scenes. We had to lock down the cameras with a first-person perspective in some of them. It takes a lot of work to transition in and out of these scenes.

CAIO: Do you have any advice for journalists who want to start using video games to tell real-life stories?

NAVID: Play games and understand them. When it comes to inter-activity, you must know the story you're working on and understand the medium to make your project impactful.

For example, there have been phenomenal documentaries about the Iranian revolution. There have been books written about it, TV shows, and even films about it. But a video game about it can only be made by someone who understands the medium.

INTERVIEW WITH WOJCIECH SETLAK - WRITER OF 'THIS WAR OF MINE'

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CAIO: What motivated you to become a video game writer instead of writing for other forms of entertainment? What is it about gaming that attracts you as an artist?

WOJCIECH: I used to work as an editor and reviewer for several games magazines, but I considered creative writing a hobby until I joined *11 bit studios*. So, it wasn't a matter of choosing one form of expression over another.

What I like about writing for games is the challenge is creating a meaningful experience that works in different contexts based on the player's choices. Your work needs to supplement the player's actions without vying for supremacy.

The writer who can work with this limitation is rewarded when a world built with their words comes alive in the minds of millions. When people can feel what others feel and experience something outside their reality, their lives are enriched.

This is what art has always done, but games make it easier to reach minds and hearts due to their participatory and immersive nature. People no longer have to read for hours, straining their eyes and imagination, and they don't have to sit passively staring at the screen. They are now part of the story.

And the life of creators is also easier. Games give us various tools, and we can pick one that's best suited in a given situation to the task of painting a world in players' minds.

CAIO: What were the biggest challenges of using gameplay mechanics to make an anti-war argument in *This War of Mine*? How did you overcome them?

WOJCIECH: We attempted to show the real face of war – at least more real than in most games – and it isn't pretty. To do this, we focused on the fate of the civilians in wartime. They're invariably the victims. So before we even get to the details, we had to avoid making an ugly game about losing.

That's why *This War of Mine* is a survival game. In this genre – as in war – surviving is a victory. And since we wanted to show the war truthfully, and a game about it without fighting would be too far detached from reality, we had to include fighting.

So the two significant challenges were to balance the survival mechanics to make it difficult but rewarding and to design the combat mechanics to make them survivable but not rewarding. Achieving this required plenty of prototyping, playtesting, and tweaking. The psychological costs of actions undertaken by the survivors at the player's command play an essential part in balancing the gameplay.

It's easy to get food and medicines by stealing and murdering. But most (though not all) survivors would then suffer from depression, eventually deepening to a complete breakdown and ending in suicide. And since the people we control in the game are not combat trained (with a single exception), the fighting mechanics must reflect that. Some players have criticized fights in *This War of Mine* as chaotic, messy, unpredictable, and challenging to control. They are like that by design.

CAIO: How did you achieve the gameplay/story balance featured in *This War of Mine?*

WOJCIECH: We wanted *This War of Mine* to reflect the reality of war, and researching the stories of victims of war was the obvious way to keep us rooted in this reality. The gameplay and the story flow from the same source – the accounts of survivors of armed conflicts worldwide and throughout history. This was the foundation on which we built our game. And this is what prevented all elements of the game from diverging too far from each other.

CAIO: *This War of Mine* has many variables in its story. How did you ensure that every possible outcome reinforced the game's themes?

WOJCIECH: We had an extensive list of persistent themes and emotions in the war stories we read and did a lot of underlining, bolding, and deleting before we arrived at a manageable list of things we could hope to convey in *This War of Mine*. We checked all the stories in the game against this list and dropped some proposals because they did not fit the design.

Of course, players also create some stories with their imaginations, and we couldn't control that process – but we provided them with parts (scenes their characters take part in), a set of rules (the mechanics), and a setting. We vetted all these three elements against that list.

CAIO: When writing *This War of Mine*, how did you ensure people would understand its anti-war message without being preachy?

WOJCIECH: Show, don't tell. We don't write about how the war breaks people. We make the characters in our game suffer the consequences of the player's choices – but also of pure bad luck. Also, we kept the language simple. We noticed that in the accounts of survivors, the most difficult experiences were described in simple words.

CAIO: What are video games' main strengths and weaknesses? How can developers improve these weaknesses?

WOJCIECH: The participatory nature of games, when employed properly, allows the players to establish emotional connections in the game world much more easily, and this can be used to influence them, convince them of something, or teach them something new.

As for the weaknesses, I don't think there are things that games can't do well or subjects they're unfit to take on. Games are a form of artistic expression like any other, or perhaps unlike any other. This is more a question of us creators and our audiences not realizing the potential of games to be different. It boils down to prejudices (for example, "games are not serious," "games are violent") and preconceptions ("games are just entertainment," "games are for winning").

INTERVIEW WITH SAM BARLOW, WRITER AND DESIGNER OF 'HER STORY'

CAIO: What was your biggest challenge when developing *Her Story*? How did you overcome it?

SAM: The scariest decision was to give so much freedom over to the player — to allow them to access *all* of the content from the very beginning. That was (and is!) very different from how most narrative-focused games work. But it felt exciting to me as a player, so I was determined to follow it.

Making it work was the effort of the whole project — it was a combination of putting time into the story development, tweaking the interface, into coming up with a system so the computer could evaluate the script and highlight issues with how the player might navigate. I would iterate the script based on the numbers the computer would spit out. Then rerun it and repeat. That was all ironed out 100% before we went and filmed things.

CAIO: What motivated you to pursue a live-action performance instead of creating a virtual character in a digital world?

SAM: Research. I was watching a lot of real-life footage from interviews and interrogations, and it stuck in my head. When I thought about it, it made a lot of sense — here, I could get a photorealistic performance without spending $5M on motion capture! The project was all about subtext, so it wouldn't have worked without the ability to capture Viva's performance. It wouldn't have come together the same way (if at all) without that.

CAIO: Do you believe that games like *Her Story* could make video games more accessible to people who are non-gamers, as they tend to struggle with complex mechanics and movement in a 3D space?

SAM: That's been the case! Not just the mechanics but also the genre — people 'get' what the game is about, and they can infer the role they are supposed to play in it. They open their newspaper, see a giant photo of Viva's character in the interview room, read the one-line intro, and get it. They don't have to know about gaming.

I also think the challenge for some non-gamers isn't just how to navigate in 3D, but why? So much gaming is focused on 3D navigation because that's easy to program, but storytelling focuses more on character than geography. Creating a game that promises to 'explore a character' rather than 'explore a space' makes it much easier to sell the experience to a general audience.

CAIO: *Her Story* is a significant departure from what we traditionally think about video games. Did you fear that your project would fail to resonate with gamers? Why?

SAM: My ambitions were pretty modest. I knew that *I* loved the idea and allowed myself to extrapolate that there would be enough people like me out there to help me cover my costs. The one thing I was relying on, that turned out to be correct, was that in the sea of game icons in the App Store and on Steam, having a photographic image to sell the game would catch people's eyes vs. the far more common pixel art or CGI.

CAIO: Is it possible to use the narrative design featured in *Her Story* to tell a real-life story through a video game? A game in which players investigate a real event through interviews with the people involved in it. Is that a project you would be interested in pursuing?

SAM: I'm pretty confident because an early prototype I created used real-life transcripts from a real case. It was one of my early confidence boosters because when I sat down and 'player' the *Her Story* gameplay with this real content, it worked — it was exciting for me to explore and discover this real case through the game. With the follow-up, *Telling Lies*, I more explicitly pulled from a specific real-life story but fictionalized and embellished it to dig further into the themes.

INTERVIEW WITH DAVID DI GIACOMO - LEVEL ARTIST IN 'DISHONORED 2'

CAIO: Could you walk us through the process that results in a finished level in a game? Now that *Dishonored 2* has been out for a few years, has this process changed at Arkane? In what ways and why?

DAVID: At Arkane Lyon, we worked on *Dishonored 2* as a mini team dedicated to the specific level in question, which was a Level Designer and a Level Artist.

The Level Designer gives the gameplay intentions for the level considering the world's constraints and how that level fits into the game. The Level Artist has to interpret these intentions at the graphical level so that everything is transparent, fun, and beautiful to the player while respecting the artistic direction. We move forward together through meetings, and by increments, we make the level evolve through time.

At the same time, QA (Quality Assurance) and Playtests monitor this process, and we adapt, making adjustments if we find that ideas are misunderstood or don't work well.

We still operate in much the same way, but we are a little more numerous per level and have included the Environment Artist in the mini-teams. This change allows us to receive in-level objects faster, estimate the timescale for each project better, and manage specific issues more simply.

CAIO: What were your biggest challenges working on the environments in *Dishonored 2*, and how did you overcome them?

DAVID: On the Clockwork Mansion, the biggest challenge was clearly to make the transformations of the house.

When I arrived in production, there were initial ideas for the transformations, but some were not feasible in real life. One of the first constraints I set for myself was that the mechanical movements could not be magical. An element should not be able to change size or disappear into the walls or the floor without being mechanically feasible. This was a rule I set for myself and an idea that served as a guide for the rest of my research and proposals.

It also had to remain faithful to the *Dishonored* universe because even if it may seem supernatural, the player had to be able to believe in it. In this house, the fact that the player could go behind the walls and see the mechanisms moving behind the scenes also made me think about how each movement was significant with its own problems.

So I researched basic mechanical principles, watch movements, transformable apartments and furniture, and kinetic sculptures (Bob Potts' incredible work in particular). I also had to consider that a transformation could never trap or crush the player, during or after.

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Once this logic was integrated, each house room became a little puzzle to be imagined and put in place in relation to the intentions of the Level Design.

CAIO: *Dishonored 2* is a game that gives many pathways for players to choose from. When designing a new level, how do you ensure that players will not get lost and will know where to go?

DAVID: As far as the different paths are concerned, Level Design must consider them beforehand. As a Level Artist, I can make proposals, but most of all, I have to guide and call the players to the possible path(s). To invite the player, there are classic calling elements that can be a landmark, iconic elements, lighting sources, etc.

The playtests that happen in parallel with our work help because they can show us whether a passage is visible enough, too visible, or not visible enough. We can then react so that everything proposed is homogeneous and meets the Level Designer's intentions.

When the main paths are well established, we can "graft on" alternative routes. That could be a specifically positioned lamp post or awning, a sewer passageway, the interior of a house, and so on.

In *Dishonored*, we love to leave the choice to the player, so if he likes to explore, we have to allow him to find his own paths and discover new things. If, on the contrary, he prefers the direct route, he can, of course, take it. But that means missing out on many opportunities the game offers.

CAIO: Levels in *Dishonored 2* are full of details for players to absorb. Is it possible to have a level with too much detail to the point of overwhelming players? If so, how do you create detail-rich environments that do not overwhelm gamers?

DAVID: It's these details that help the player to immerse himself in the game's world. All these elements help with the storytelling. The little stories that can be told by the arrangement of the objects count as much as the object's design itself.

But it is a question of balance. Suppose objects, which are necessary to understand the main story or solve a puzzle, are drowned by an overabundance of elements around them. In that case, it's a mistake that needs to be corrected. We must always remain vigilant about this balance.

CAIO: *Dishonored 2* features many location types. How do you ensure they are all visually cohesive? For example, how did you ensure that the Clockwork Mansion remained in line with the other levels when it was so distinct from everything that preceded it?

DAVID: The *Dishonored* games have a solid graphical identity. Most objects and decoration elements follow a specific artistic direction that is adhered to from the concept phase through to design.

The set elements that the Level Artist creates go to the concept or environment team with small documentation explaining its intentions. These teams then take over these elements to ensure visual continuity throughout the game. Although specific, the parts of the Clockwork Mansion are no exception to this rule.

CAIO: The world of *Dishonored 2* can be alien to someone who did not play the first installment. How do you introduce people to a new world in a way that feels interesting instead of confusing?

DAVID: Starting the *Dishonored 2* adventure in Dunwall, in a familiar and faithful environment, will confirm to the player that he is in the same world. The story leads him to understand that the adventure will occur somewhere different. The storytelling team helped the player assimilate this new idea, this new world with its own way of life and inhabitants.

Karnaca is one of the cities already present on the maps in the original *Dishonored*. If a player of the original game was attentive, they might already be familiar with the name of this new location.

CAIO: Some people argue that the world of *Dishonored 2* is the game's most crucial character. Do you agree with this assessment, and does it influence how you approach your work?

DAVID: It's a question of sensitivity. The *Dishonored* universe was this visually distinct world that offered something new, original, and unexpected when the game launched. But it's more than that. The characters are also very charismatic, the weapons are remarkable, the objects have distinctive designs, and the powers give the possibility to approach and see the game differently.

If the world is an essential character in some people's eyes, then it is thanks to the narrators and Level Designers who deepen it through all the plot twists, side quests, and visual anecdotes. All these little things together make up the world, and each team member is just one piece of the puzzle that makes this world exist. A game is a whole, and it's all about teamwork. We all complement each other.

CAIO: As a level artist, what are video games' most significant advantages when it comes down to creating immersion? Are there any disadvantages?

DAVID: More generally speaking, video games benefit from creating their own worlds that can come straight out of the imaginary. This benefit allows players to completely remove themselves from ordinary and everyday life and project themselves into something completely different.

This in-game universe inspires us. We are thrilled to be able to help develop it, make it more complex, and make it plausible and palpable for the player. It's hugely motivating. But in cases where the vision is not ours, or if we find it challenging to project ourselves into the world, that becomes my main drawback. It's complicated to make something attractive or interesting if we can't put our heart into it.

CAIO: What's the biggest lesson you learned working on this game?

DAVID: Before I came to Arkane Lyon, I was not a Level Artist. I worked for 13 years in another studio where the way of doing things was different. I was a CG Artist, and not only did I build the sets, but I also created the objects I needed. It was as if the work of an Environment Artist and a Level Artist were the same.

In Arkane, I specialized, so I no longer approach problems in the same way. The fact that *Dishonored* has this multi-path approach requires a deeper reflection.

Moreover, working directly with the Level Designer and being both fully dedicated to the level we are working on means we take the time to think and make things evolve. In my previous studio, we had fewer responsibilities and justifications on the levels. On *Dishonored 2*, we had greater autonomy, and if whole parts of the level had to be moved, reviewed, or enlarged, we could do it – the size of the Clockwork Mansion changed several times through development, for example.

As with almost all development processes, many ideas were put in the trash, but at least they were considered and tried. The pros and cons were evaluated for each one. Even though sometimes I might have been disappointed that a proposal made could not be kept, at least I knew why and I could bounce back on something else.

I was invited to make a lot of proposals, even crazy ones because a bad idea can lead to a good one, so the art direction was open to what I had to propose.

Everything is done to make the player feel immersed, never lost, disoriented or confused. And to do this, we go through many stages, we have to respond to many constraints, and we have to consult a lot with each other.

It is like a drawing or a painting. You rarely get the desired result on the very first draft. There are often many evolutionary steps; first sketches, set-ups, framing, light sources, corrections, rework, cropping, etc., to finally reach a satisfactory final result.

INTERVIEW WITH CHRIS CRAWFORD: AUTHOR OF 'CHRIS CRAWFORD ON INTERACTIVE STORYTELLING'

CAIO: You have criticized how the video game industry handles narratives and artistic expression. Have you changed your mind, even if just a bit?

CHRIS: Not at all. I've seen no progress. There's an American expression; perhaps you've heard, "putting lipstick on a pig." Yes. The video game industry keeps putting on more lipstick. It's not addressing the issue.

They aren't thinking in fundamental terms. What is narrative? What are its point and purpose? Why does anybody care about it? They don't ask questions like that. Their concern is making the narrative prettier and longer.

CAIO: Has a game ever made you cry?

CHRIS: Never.

CAIO: Are you the kind of guy who cries easily with fiction?

CHRIS: A better metric would be whether a game has ever touched me. No. But many movies and books have. I've never seen a game with artistic merit to it.

CAIO: That's an interesting position because there is a big argument about whether video games are art. And many gamers defend games as such. It's interesting to see someone who spent so many years working with games argue against that notion.

CHRIS: I'm not saying video games can't be artistic. But take a step back and question if the people claiming games are art care about art. How much do they know about the topic? How many of them have read Shakespeare? Not many. When they talk about art, they mention *Star Wars.*

What's going on here is that games have always had a bad reputation. Many people feel they are a waste of time, and gamers are very sensitive about this topic. They want to perceive what they enjoy as something worthwhile. And so they pounce on this idea of games being art to feel better. We have to discount that motivation. We have to be careful. Are these people doing an objective analysis?

We have to ask one question: what is art? And, of course, there are a million definitions, so there's no point in trying to find only one. But there's one I like: art is a way of talking about the human condition. Art is about people.

This leads to one of Crawford's laws, which I summarize as "people, not things!" Games should be about people. I reached this conclusion in 1983. Until games are about people, they have no real content.

I spent my entire career trying to push this basic idea and failing. That is the games industry now. Sure, they've got lots of people in their games, but they are nothing more than a vending machine with a face slapped on the front.

You don't interact with people as if they were people. You have to say the magic words and give them the magical thing. You have to do *this*, and they'll do *that* for you. The relationship with people is not interactively developed. And that's the critical point.

In defense of games, this is hard. I spent 25 years working on it and failed. I will not attack the games industry for failing to do what I failed at. But I do attack them for not even trying.

CAIO: How do you make a game about people?

CHRIS: Every game needs to be interactive. So then you ask, "what does the user do? What are the verbs?" And if you're going to do a game about people, the verbs have to be about people. They must be about emotional interactions: insulting people, crying, running away, and acting scared and angry, for example.

Those relationship verbs are the ones that matter. And none of those show up in games. Verbs in games are all about things like running, shooting, and dodging. That's the failure. But again, I've built games with interpersonal verbs, which turned out to be immensely complex and challenging to make. I never succeeded.

CAIO: But games tell stories. Stories are art, right?

CHRIS: Gluing art onto a game does not make it art. That's what the game industry does. There are stories in games, but it's not the game that's artistic. It's the non-interactive story that the developers tacked onto the game almost as an afterthought. You could play the game without the story.

CAIO: But what about games that allow you to interact with people? Games with dialogue options, for example.

CHRIS: Those typically operate on a tree structure. You start with two choices. Then you have two more options, and so on. The trees don't work. People have been using them for decades. I've seen these efforts going on.

The tree is not the solution. Think of the fundamentals. I was trained as a physicist. So, the fundamental thing is discovering the essence of the problem. Can we get to the heart of the issue?

If you dig deep enough and go abstract enough, you can come up with an idea that can solve many problems. So, we need to understand that when it comes down to artistic games, the fundamental issue is finding a way to make it about people, not things. But then the question is how to create that.

After many years I've been slowly converging on a solution. Now I can articulate it, and I'll summarize it as "object versus process."

CAIO: It sounds like a more systemic approach instead dialogue trees and branching paths.

CHRIS: An algorithm is a process-intensive approach instead of a data-intensive approach. Data is object. Algorithms are processes. And there's a fundamental weakness with the human mind here.

The human mind sees reality as a collection of things, but you can also perceive it as a series of processes, which is what a computer does. What's the most crucial part of a computer? The central processing unit. The CPU. That's what computers are about. Processes.

And the language of processes is algorithms. And the language of algorithms is mathematics. Now you're in trouble because nobody likes math. I don't like it, but it's what you need. People insist on thinking of the problem as a matter of data.

They think we need to compile enough data, and we'll solve it. They believe we need lovely images of people, faces, spaceships, etc. And that doesn't work. You need to think in terms of processes.

What causes a person to get angry? What would cause a person to lie to a friend of theirs? What are the psychological processes at work here? That's the essence of the artistic effort we have to make. And unfortunately, there aren't many artists who will ask what mathematical equations describe the process of getting angry.

That's not something you talk to an artist about, but if you're going to do art on a computer, that's what you need. That's our problem.

CAIO: Is the independent games industry more likely to create that kind of product than the AAA industry?

CHRIS: Sure, but for a straightforward reason. Making an AAA game means spending millions of dollars. You will not take chances if you invest so much money into a project. You don't spend millions of dollars on a wild experiment.

You spend millions of dollars on something safe. So it definitely won't come out of the mainstream industry. I'm not optimistic that it will come out of the indie developers either because they tend to think in terms of what has come before.

They need to ask, "where do I want to go?" But everybody is thinking of where we are. One of Crawford's other laws is if you don't know where you're going, you probably won't get there.

CAIO: If this technology won't come from AAA developers and won't come from indies either, where is it going to come from?

CHRIS: It's not coming for a long time. I hoped that I would get the ball rolling. The problem was I got so old that I couldn't program anymore. Programming is like juggling balls. You've got to have a lot of balls in the air. Cause you need to keep a million details fresh as you write the code.

As you age, it gets increasingly harder to remember a million things simultaneously. And I lost the ability to write complicated code. I can still write simple programs but can't do complex stuff anymore.

My next step is to educate people. Teach them the fundamental ideas. I realized that my thinking style is unconventional. I have these ways of thinking that are very process-intensive.

I think in algorithms. It comes naturally to me because I've been doing it for 40 years, but it doesn't come naturally to other people. And so I have to teach them how to do it. I plan to prepare a large enough group to eventually build a community capable of doing it.

But we have to build an entirely new community. It has to develop from there. So, that's what I've been working on now. I've been developing a course teaching these concepts.

CAIO: You said you think differently from other people. Can you give me an example?

CHRIS: Sure. When you look at a tree, what do you see?

CAIO: Branches representing opportunities.

CHRIS: I see photosynthesis in the leaves, in which sunlight triggers a complex chain of chemical reactions that produce ATP, which then converts into sugars and so on.

Here's another good example. When you look at the sky, you see it's blue. That's all you can say. When I look up at the sky, I see zillions of photons from the sun of many different colors flying through the atmosphere, but the blue ones happen to hit air molecules more frequently and get bounced down.

And I'm seeing all the blue photons bouncing down from the sky. And all those blue photons coming towards me bounce away when I look at the sunset. And the only ones that are left are the redwoods. So the evening looks red for the same reason the sky looks blue.

And so this is process-intensive thinking. It's thinking about the processes that make makeup our reality turns out. And this dichotomy shows up everywhere.

Think of economics. An economy consists of goods and services. Goods are things, and services are processes. So when I go to a lawyer and have him draw up a contract for me, is he delivering the piece of paper, a thing, or is he delivering the service of writing the contract? You can see it either way, but I prefer to see it as a service.

Here's another example. When I go into McDonald's and buy a hamburger, am I buying the beef patties, special sauce, lettuce, pickle, onion, etc.? Or am I buying the services of the farmer who raised the cow, the trucker who drove the meat to the restaurant, the cook who cooked the thing, and the lady who took my money. What am I buying, goods or services?

The data versus process dichotomy shows up everywhere. In military science, physics, chemistry, linguistics, and computer science, it's data versus algorithms. In linguistics, it's nouns versus verbs. It goes on and on and on. People need to start thinking this way.

CAIO: So, you have a unique way of thinking. Do you think that's why you appreciate interactive storytelling so much while other developers don't?

CHRIS: It's not a matter of appreciation. Everybody would like to do interactive storytelling. Everyone agrees it will be great if we can get it working. But nobody knows how to do it. I have watched many people over the last 25 years trying and failing.

So I won't say that I have a better appreciation. I have made more progress in solving the problem. But I have not been successful.

CAIO: I suppose the most challenging thing would be for the game to understand drama, right?

CHRIS: Dramatic language is too complex for a computer to analyze. I'll give you a perfect example. Imagine you are a computer program trying to understand a story. And the story you're trying to understand is the movie *The Empire Strikes Back*.

You're watching Luke Skywalker say to Darth Vader, "you killed my father." And then Darth Vader says, "no, I am your father." Calculate what that means. That's impossible. However, there is a solution. It's one at a fundamental level we have been doing for years: don't try to do reality. Make toy reality.

The realities that we have in games are all toy realities. There's a wall around the city, and you can't leave the city. Or have you ever noticed that people in games never go to the bathroom? Well, that's because it's not essential for our toy reality. We leave it out. In the same way, we can create toy languages.

I've been working on that for many years, and I've got all sorts of technology for how to build a toy language. So that's the way we solve the problem. The user learns to speak this toy language now for that to work.

CAIO: Can an interactive story have the same emotional impact as traditional storytelling?

CHRIS: It won't. You can never make an interactive computer story world as rich and deep as a handmade story. But machines make all sorts of things that aren't as good as what can be made by hand, but they have other advantages.

The most crucial advantage of interactive storytelling is that the story you create is yours. But, one of the objections is that the author can´t ensure a satisfactory ending.

But the author doesn't need to do that. How can Microsoft Word ensure that you write a good essay? It can't. That's not its purpose. Its purpose is to let you write what you want to.

If you choose to write crap, you can do it with Microsoft Word. And in the same way, if you're in an interactive story world and you decide to do something dramatically stupid, you'll get a bad ending, which is how it should be. And that in itself has merit. You learn from it.

That's the most important thing about games is that you lose repeatedly. So, you learn how to do better. And so imagine an interactive story world about romance. You should lose a lot. You should fail before you get it right. That's what interactive storytelling is for.

CAIO: And how you react can tell you a lot about yourself.

CHRIS: Yes. It's what you learn about yourself from your choices. No passive novel can ever accomplish that. The book will still be a superior story, but they're different things.

CAIO: Do you think interactive novels and films can be the future of interactive storytelling?

CHRIS: No, because they are starting from the wrong starting point. They are starting with something fundamentally noninteractive and adding interactive elements to it. It's like trying to fly by putting wings on an automobile. You might get something, but it's not going to work well. So don't start with an automobile. Imagine if Honda decided to break into the airplane industry by sticking wings to cars. Interactive novels and films are like that.

CAIO: But if you had unlimited time and money, what project would you develop?

CHRIS: It would be an interactive story world first. And it is about the protagonist dealing with a group of people. Each of them has a different personality and different needs and desires. The game I've always wanted and will never be able to do about the Arthurian legends in which the player is King Arthur. And the problem is that all of the Knights of the round table have different things going on, and they're constantly fighting each other.

And then, in the middle of all this chaos, Mordred revolts against you. Can you convince all the Knights to unite under your leadership to fight Mordred's rebellion? That's a good way of expressing the idea of the interpersonal challenge of dealing with many different people with many different needs and desires and emotionally welding them into a single community.

CAIO: Do you think game design education must change?

CHRIS: Yes, the current educational approach is strictly technological. They learn very little about art. But they need to learn both art and mathematics, and no school teaches both at the same level.

CAIO: Did your GDC dragon speech have the effect you wanted? Would you change it if given the chance?

CHRIS: I would change some details, but not the fundamental message about the pursuit of artistic goals and the realization that the games industry wouldn't permit it. This message remains true.

CAIO: What needs to happen for you to return to this industry?

CHRIS: Suppose somebody came along and offered $20 million to build an interactive storytelling project to do interactive storytelling I would accept it. I can do it, but it'll take 20 years. And I would recruit many young people with lots of enthusiasm and then put them through rigorous training to change their thinking.

I would put them to work building software from the ground up. We wouldn't use any of my technology. We'd use the ideas in my technology and create something new.

INTERVIEW WITH JESSE SCHELL - AUTHOR OF 'THE ART OF GAME DESIGN: A BOOK OF LENSES'

CAIO: Will dialogue options and branching narratives allow developers to unlock the narrative potential of video games?

JESSE: Branching dialogues are fine. When we can have AI characters that can communicate in a more natural way, that'll be even better. But that is such a technological jump, and I don't think we need to wait for it. Branching dialogue is more natural than people think.

CAIO: Chris Crawford mentioned that the future of video game storytelling is all about algorithms that will allow people to create a full dynamic character. Can these player-driven stories have the same emotional impact as a hand-crafted linear narrative?

JESSE: They can have a much more significant impact. I agree with Chris. It's the long-term future of video game storytelling. But it's also a matter of how long-term.

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Chris has been talking about that for 30 years as if it's five years away. So far, it's still very far away. But it's coming. We are making strides in meaningful AI that can understand human communication, so we will start to move toward that. But it's hard to say how far it is. It's at least ten years away, maybe 30-plus years away.

CAIO: Can you predict how things will look in ten years?

JESSE: We'll see significant jumps in natural AI conversation within the next ten years, probably by 2020. But people need to understand how many technological leaps we must make.

We still cannot converse normally with someone like Siri or Alexa. That is nothing like a human conversation. And I don't mean how open it is. I mean in the rhythm of it.

There is a rhythm to human conversation. Most people don't comprehend that, even the professionals who are making these algorithms. So we have these rhythmic hurdles that we have to overcome. Then we have these AI hurdles in understanding the context of a situation that we are yet to overcome. And then you need to integrate it with storytelling.

CAIO: During a GDC talk, you mentioned the idea of players having a companion that follows them throughout their lives. You also have experience with augmented. Do you believe in converging these two topics, allowing players to use augmented reality to take their companions to the real world?

JESSE: Yes. This is going to be an important medium for children. Teenagers and adults will be less interested in that kind of play, but children will like it a lot. There will likely be adaptations for teenagers and adults, but it will be central in the decades of the 2030s and 2040s. It's going to be a central play pattern for children.

CAIO: Will AR evolve and target adults?

JESSE: AR for functional purposes, particularly within industrial and educational contexts, will be normal for adults. But it's less clear if it fits entertainment purposes. Once it becomes very inexpensive, it will probably make sense.

But I have difficulty understanding how AR benefits an average person doing their work. I'm not sure it's something most people need. But once it becomes free, people will probably start using it.

It's a lot like video conferencing. You and I are doing a video conference. Video conferencing was invented around 1950 and has been available in the market for a long time. But it only got traction when it was free, around 2000 or so. So it took 50 years before people started to use it.

But even nowadays, it isn't crucial. For example, if I couldn't use it today, we could have this conversation over the phone. It would be fine. Video conferencing is a marginal technology. I suspect AR would be similarly marginal.

CAIO: What must happen so more people play video games?

JESSE: 90% of people already play video games. Does it matter if those last 10% don't play video games?

CAIO: Some people see gamers as outcasts, which is a very outdated way of thinking.

JESSE: How people talk about games is one thing. Whether they play them is another. I know many people who always play mobile games but claim not to play games, even though I've just seen them play *Candy Crush*.

They mean they don't identify with the gamer stereotype but still, play video games. They mean video games are not emotionally important to them.

CAIO: How do you make games emotionally important to people?

JESSE: That has much more to do with a video game's ability to tell a coherent, emotional story, and AI can help. There's much we can do except wait for the AI.

CAIO: AI will also allow you to create the companions that you mentioned. But is there a concern that people may get too attached to those companions? How do you ensure that the relationship between players and their companions remains healthy?

JESSE: It's too early to ask that question. That's like creating a new cake recipe and worrying it may be too delicious. What if people get diabetes from overeating? I can't worry about that. I still need to make the cake. Let me bake it and see how it goes. Then we'll worry about if people like it too much. It's like other technologies.

People can use smartphones too much. They can also watch too much television and play video games too often, all to their detriment. You have to deal with these problems on a case-by-case basis. The way you deal with television addiction is different than social media addiction.

CAIO: Many games have companions, although not in the sense you mentioned in your GDC talk. How do you see them?

JESSE: I've seen some games with interesting interactions with companions. But it's rare when a game has meaningful interactions. But the potential is there.

CAIO: What is your current assessment of the industry, uh, as a whole? Are you satisfied with how developers treat storytelling, or should there be a further push toward it?

JESSE: It's a beautiful time. There's so much experimentation happening now. We're in a golden age right now. We have the AAA industry, which allows games to have large budgets so that you can have titles like *Red Dead Redemption 2*.

But you also have an ecosystem that allows for independent creation and experimentation. The result is millions of small experiments combined with a drive to make towering experiences.

We also have many new technologies coming out, which give everybody a lot of confidence about new experiments. What more could we ask for right now?

CAIO: Will online games play a significant role in the future of video game storytelling?

JESSE: That's an interesting question because storytelling is a private experience. But, we will continue to see a situation where the greatest story games are the ones that are single-player.

But we'll see exciting integrations of storytelling experiences with multiplayer games. That will primarily happen when AI becomes become more prominent. Having them be part of multiplayer games in interesting ways will allow for some exciting story experiences.

We will see a new genre of storytelling games: co-op storytelling. Not so much MMO because they end up being very chaotic, but a meaningful story where a few friends and I are working closely with powerful AIs guiding us through a story.

CAIO: *Quantum Break* is a game with branching narratives. But the game also has some live-action sequences that work as TV shows, and the choices you make in the game also influence the TV show. Could this kind of transmedia experience play a significant role in the future of video game storytelling?

JESSE: I'm skeptical about it. We've seen that experiment tried many times before. The problem with it is that the mindset of playing a game is much different from that of watching a TV show. They don't combine well.

If the videos are customized to me, and they're not the same thing someone else saw, then I can't have a meaningful social experience where I discuss the story with them. It's an interesting novelty, but it won't be meaningful.

CAIO: And how do you see media adaptations?

JESSE: Movies based on books are possible. Movies based on video games are also possible, but they're something different. It's different because of the world that you've created. When I play *Pokemon*, it's my story. When I watch the *Pokemon* TV show, it's not my story. It's a story happening to someone else in the world, and it's the same world. I learn about the world and see its characters, but it's not mine.

CAIO: So, how do you see cutscenes as a narrative device?

JESSE: Cutscenes are a rest between interactions. They present a problem saying, "there's this problem, and you have to go solve it." Then there'll be a cut scene saying, "you solved that problem. Good job. Well, guess what? There's another problem." They integrate themselves well into my story. They help set up and conclude it.

CAIO: Many people say cutscenes are boring. Why?

JESSE: There are many poorly executed cutscenes because most game designers are not good at either cinematography or storytelling. So there are many bad ones, but there are many loved cutscenes.

INTERVIEW WITH IAN BOGOST - CO-AUTHOR OF 'NEWSGAMES: JOURNALISM AT PLAY'

CAIO: Your book about newsgames launched ten years ago. How did your thoughts and opinions have changed since then?

IAN: Interesting question. In some ways, the spirit of my opinion remains the same. From the 90s through the 2000s, game studies, especially serious game design, were all about promise.

They argued games could be learning tools, political speech, journalistic, etc. But it was all still forthcoming. Looking back, you can't say that we realized that potential.

The first and most important observation is that when we were writing about newsgames in 2008 and 2009, they were curiosities. Like, "here's a novel idea, something you can do with games." The only exception was newspaper puzzles, which remain the most interesting and successful use of games in journalism.

The rest was only novelties. We've got some new versions of it. VR and AR are the most notable. And it's not that there's nothing to them. You put on a helmet, and then you're somewhere else. And being somewhere else gives you a sense of what it's like to have experienced a particular moment. Apart from that, newsgames are still in that state of being "just around the corner."

We're still in this state of potential. But at the same time, the media ecosystem has changed substantially in these ten years. And we've completely embraced social media and the internet. So I wonder if pursuing the ideas or projects we articulated in our book ten years ago is possible today.

CAIO: Why is it always around the corner?

IAN: "Around the corner." I've tried to avoid it in my work, but I've been guilty of adopting it. It's so easy in research or in commercial work to sell something on the face of its promise. You´re trying to will something into existence by declaring it, saying that a certain future is about to happen.

We tried to avoid that in our book. Instead, we said, "there is a relationship between journalism and games. Here are some ways it has played out." And there are other ways for them to become meaningful, but that would take a deep, long-term investment. And that's what we discuss at the end of the book, which is an idea still stand by. You can't just do occasional experimentation and expect it to gain results and institutionalize something as a practice that exists in people's hearts and minds.

For example, think of television news. If it didn't exist and you were inventing it by trying one newscast and seeing what happens. You'd miss the point. Television news works because it happens every day. You have to push it. For example, when CNN appeared, the idea of

a 24-hour news network was preposterous. But Ted Turner insisted and decided to will it into existence. Unfortunately, when it comes down to newsgames, there hasn't been enough investment and commitment for them even to have a shot.

But such investment has happened elsewhere, in other digital media, and in ways that may or may not be beneficial to the public and may or may not advance journalism. Any social media platform that arises gets immediately adopted as a potential thing to exploit for attention by media firms or individuals vying for attention.

These social media platforms have seen that kind of long-term commitment and investment, not to mention that they're much more iterable and are a much smaller shift from the norm than newsgames. So that's the disconnect between the "just around the corner promise" and the reality.

CAIO: Do you think this is a money problem?

IAN: It was always the problem we encountered in the arts. When we talked to news organizations, they said it would cost too much money. And I'd tell them it wouldn't. But people think video games cost millions of dollars to make. This situation is interesting.

Think about when internet video became popular for the news. Journalism networks didn't reject them because Marvel films cost hundreds of millions of dollars. We're not doing that. We're doing video. It has similar properties, but we're not creating blockbuster feature movies. That was the disconnect that we always encountered.

And when we did the work at the studio, we got little money. But it still had to continue. I had to persist. I couldn't just do a couple of examples. So there has been a preconception about cost. But there also hasn't been a profound development of expertise or an adoption experience in news organizations that would allow them to play in that playground.

There's another consideration, though. Where would you draw that talent from? When we wrote the book in 2008, we were ramping up the indie game scene. Things like Xbox Live, Steam, and the app store universe were starting.

It wasn't clear yet that small-scale game creators would have an independent outlet. And, with that option, why would someone with expertise in game development go and make newsgames when they have this other place where they could be where the ceiling is much higher? So it's not just the investment. It's also the strategy and the availability of talent.

CAIO: When you talk about investment, it's for the studio and the audience. Journalism aims to deliver content to as many people as possible, and games are expensive for you to play. You need a PC game or a console. So, could that be a problem?

IAN: A couple of things here. The first is that a news audience is created through habituation. The interesting thing about news is that it's constant. It's always happening.

Sometimes, we react to it too quickly, both creators and consumers. But, you can't keep up with the present without keeping up with the news. So you take the newspaper, read online articles or see whatever falls on your Facebook feed, and so on.

You do it every day, maybe even every hour. So, for newsgames to become a thing, they must exist for players on some cadence. It doesn't have to be daily. But it has to be more than very infrequently.

In our book, we articulated many different newgames genres, including documentary games, which are more like commercial games. You may need a console or something to play them. But even then, you need regularity to identify it as a genre rather than a curiosity.

But this situation doesn't mean that newsgames will only be successful if they're on Xbox. Over the last 12 years, smartphones worldwide have increased massively. Everyone's got one. And people are always carrying them.

So, there's potential for them to be connected to a habitual experience without requiring a new investment from the news consumer. But creators haven't exploited them that way.

CAIO: Elaborate on your ideas for documentary games.

IAN: There are a couple of things that are important to understand. First is the documentarian tradition. Where it exists and where it has thrived and grown, especially in the last ten years, when we thought we were going to get a documentary feature revival.

It happened but only to a certain extent. Documentary took hold mostly on streaming services, such as television and docu-series, like the scripted *Chernobyl* series. There was an enormous investment in that sort of thing.

So, if you're a documentarian, why would you pursue games instead of television? In the last ten years, you need to be crazy to be on the verge of breaking a big story and do it in a game format when you could have had access to a broader, more lucrative, and maybe more influential audience on Netflix. So that's a big part of it.

Also, for whatever reason, the gaming community is allergic to non-fiction. Think about how giant commercial games talk about contemporary events but then steer clear of them at the last minute, like all the *Call of Duty* games and even independent titles.

When *Papers, Please* appeared, it became an indie darling about the iron curtain and border crossing. Gamers only accepted this game community because it was allegorical. It was fictionalized. And maybe the gaming community will never get over this idea that there's no place for non-fiction in games. We don't have a culture of non-fiction.

CAIO: Why do you think that is?

IAN: Game players don't see themselves as political beings, even though they are. But they don't see themselves as such.

It's the compounding interest of habit. The more people get used to something, the more traction it gets. It's like a snowball building speed and mass as it rolls along an incline. Regarding nonfiction in gaming, whenever there's a bit of a star, the Sun melts it.

If you compare that to the docu-series scene, there's so much of it now that some people want to take a break. So, it's precisely the opposite problem that we have in games.

The thing about lens-based media like photography and cinema is that there is an established way to represent the world with it. But, how to compile information and transform it into credible evidence through a video game has never been clear. Those who have tried have always been subject to deep scrutiny, much deeper than you would ever find in other documentary forms.

My favorite example is *JFK Reloaded,* which has a lot of problems. The game explicitly said its purpose was to provide evidence that JFK's assassination happened in a certain way. But then you played and started questioning it.

It does the exact opposite of what it wanted. Imagine watching a documentary and leaving thinking the opposite of what the creator wanted you to believe.

CAIO: Can you solve this problem by teaching journalists game design in college?

IAN: It's solvable, but there has not been a groundswell of interest and opportunity sufficient to make it happen. Cause it's not about one solution. It's about an evolutionary process where you have multiple competing techniques, and then those become conventional.

It takes time. One version would be to borrow what we know works from documentary storytelling in other media. But then the question becomes, "why not just write a book?" Or make a film. Why are you making a game?

And there has to be a compelling answer to that question. And the answer is not, "well, because there's a market of players that want this." If that were the case, we'd be in a different position, but it doesn't seem that anyone who plays games wants this. And it doesn't seem like people who consume news or television want it either. So, who is it for?

How do you draw them in? We're still waiting for solid solutions to emerge. Five years ago, we thought consumer virtual reality could be it. I've seen people do some exciting stuff with it. Still, I don't see evidence that that will ever be a consumer category of large note in entertainment, let alone in the news. But I could be wrong.

It's almost like we're behind the eight ball because. We're not entering this problem at a time when there's an obvious transition of technology or attention. Imagine that if we were having this conversation in 2006. I thought about these things, like, "Okay, now there's the iPhone. And then the Android and the smartphone are here, and that's it. We're going to turn that into a device for this stuff."

But that didn't happen. Now, more than 15 years, other things have settled into that space. We'd need an ecosystemic shift for the door to open again. And I don't see that on the horizon. We seem to be on a technological plateau.

CAIO: Do you think this may be the case that people don't know what they want until they see it?

IAN: Sure. But to do that, you need an extreme, strong, and concerted effort to deliver that to people. Look at how Apple has rammed its will down the world's throat. It has been highly aggressive, backed by enormous piles of money.

Netflix and Amazon have done the same with streaming television. They were highly deliberate, although not all of these things succeeded either. For example, Google is trying to build a streaming game service now. Now Microsoft and Amazon want to do the same. Are they going to succeed? It's possible, but not with little bits and pieces here and there.

CAIO: For more people to be interested in the idea, do newsgames need to be mechanically simple?

IAN: If you have a complex game with challenging conventions, that's more exclusionary. And the other thing that's at work here, which we all underestimated, is how powerful and unusual the television was.

You sit there, turn it on, and it happens. It's amazing. It's a miracle, and it's engaging. It's immersive and powerful. With games, the selling point is that you take control. But what the average person wants is not to take control.

CAIO: People without video gaming experience struggle with 3D movement. So, would a newsgame need to avoid 3D navigation?

IAN: Sure, but then you get into the other problem. Why am I not watching television? It's a balancing act. It has to be different enough from watching TV. There has to be a solid reason to engage with it as a game, but then it has to be familiar enough as an experience for you to be willing to engage with it.

CAIO: Imagine a documentary game that plays as follows. You take the role of an investigative journalist. Your objective is to study documents and gather information from them. Based on that information, you choose who you want to interview.

After you schedule an interview with someone, you have 10 minutes to choose dialogue options that will review as much information as possible. How much data you gather will depend on your skills.

At the end of the game, you must guess correctly the events you are investigating. If you get them correctly, congratulations, you win. If you don't, you lose. The idea of choosing dialogue options will be very intuitive to anyone.

This approach would be an interesting way to create a documentary game distinct from television and it would be accessible to someone who's not a gamer.

IAN: There've been some precedents to this premise. It's always interesting, but there's a worry that I've always had about it. People don't understand what journalists do, and journalists have done a poor job of helping the public understand their job.

It's always depicted dramatizing this profession as a kind of gumshoe journalism that hasn't existed since the 1970s. Or journalists are portrayed as an enemy of the state.

Especially in countries like ours, the public has already been turned off to journalists as a figure, which is a problem. When you play as someone, it has to be a fantasy that you want to involve yourself in, and you have to be interested in it.

The other concern is that it's important to distinguish the work of journalism from its results. The process is as important as craft, practice, and education. It's not something that the ordinary person needs to know.

CAIO: We don't need to teach the audience how to make journalism. The idea here is for players to unveil a story through their actions. But I also understand that this intertwines with teaching someone how to do journalism.

IAN: You also have to be careful not to create a misconception that journalism can be glamorous. The vast majority of journalism isn't. It involves a lot of mundane tasks, which wouldn't be very compatible with games.

CAIO: Many people see games as toys. Does this perception limit the topics that a journalist can address in video games?

IAN: This perception has been a problem. It's been an obstacle to any of these serious games or games beyond entertainment. Public perception is changing, but such a change is happening a lot slower than people assumed it would, and it's necessary for newsgames to gain broad adoption.

Compare games with social media and smartphone apps. In ten years, they've gone from almost total obscurity to completely universal acceptance. one had ever seen or heard of any of this to utterly universal use and acceptance.

No one worries about political content on TikTok, which has existed for only a few years, but games still face this problem.

CAIO: Will a generation of journalists that grew up with games invest in newsgames?

IAN: I hope so. I'm not trying to be pessimistic but I've seen this for 25 years. A new generation comes of age but then you don't see the changes you expected. But maybe there will be a point where a demographic shift will emerge.

INTERVIEW WITH AMANDA GARDNER - WRITER OF 'PERCEPTION'

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CAIO: The concept of making the player role-play as a blind character seems counterintuitive, considering the audiovisual nature of video games. How did the idea come to you?

AMANDA: My husband Bill, the lead designer on *BioShock* and the design director on *BioShock Infinite*, was walking out of a grad school class. The professor had told them they needed to come up with a brilliant idea by the time they got to their cars. It was a slippery and dark winter in Massachusetts. So, Bill got the exciting notion of illuminating his footsteps with their sounds in the dark. It snowballed into echolocation. When he got home, we talked about a story.

CAIO: What was the main objective of the making player role-play as a blind person?

AMANDA: Information is the enemy of horror. We wanted a game where we took the information away to a new level. We also wanted to tell a story about a woman who was brave, unconventional, and happened to be blind. We aimed to avoid stereotypes and the notion that being blind is scary. It's not, but the story we told is.

CAIO: Some studies aim to create games that foster empathy towards a specific person or event. Some people claim that *Perception* fosters empathy towards blind people. Was this a goal set from the start of the project, or did it emerge naturally?

AMANDA: It emerged naturally. Writing a game that fosters empathy as the original goal sounds manipulative. Cultivating compassion is good writing, not the reason you should write. We wanted to tell a great story and raise awareness of human echolocators such as Daniel Kish and his incredible charity, World Access for the Blind.

CAIO: Before working in game development, you were an English teacher and writer. How was the transition between literature and the interactive storytelling of video games?

AMANDA: Writing books is much different from writing games! You can rely on the way things smell or memories. In a game, all you have is what the character says and does. I was lucky enough to have Bill show me about environmental storytelling – what game does it better than *BioShock*?

Anyway, my experience in the classroom helped because I have such a diverse literary background, and I have intensively studied the classics. I've infused my writing with classic literature's themes and motifs, and if you look closely, you can see several literary references in *Perception*!

CAIO: Do you believe you could have told the same story of Perception in a book while creating the same level of empathy from your audience towards blind people?

AMANDA: No, *Perception* is an experience. It's immersive. I could write it, but not with the same impact as playing it.

CAIO: Video games are an audiovisual medium. Players are used to seeing the game. Did you fear a player could feel uncomfortable playing as a blind person? Or was a certain level of uneasiness part of the intended experience?

AMANDA: We wanted people to feel and be present with that discomfort. We tweaked the amount of information we revealed with each tap until it felt like "just enough." For a while, it was too sparse, and people got lost. But there was also a time with too much "light" people could see. That was tricky!

CAIO: *Perception* has been available for some time now. What was the reaction of the community? Have players reported feeling more empathy towards blind people after experiencing some of the difficulties they face?

AMANDA: We've had so many beautiful stories of players with low vision playing it and saying they finally felt some representation, which is fantastic. We've also had many sighted players who said they felt like they understood the blind people they know better. It's been a tremendous experience facilitating this kind of dialogue.

CAIO: What about the future? Will you continue creating games that change how people see the world by fostering empathy?

AMANDA: We're working on a game called *Dark Web*, a series of short replayable horror games. What's nice about that is that we can tell all sorts of stories! Empathy is a natural part of storytelling, so we'll definitely be tapping into that.

CAIO: How do you see the future of video games as a platform to create experiences that foster empathy?

AMANDA: The future is wide open, and the idea that games can bring us closer to each other and open up our hearts and minds is a compelling and fascinating future that I'm thrilled to be a part of.

About Caio Sampaio

Caio is a digital media researcher from Rio de Janeiro, Brazil. He received several accolades thanks to his research on the convergence of video game design and online journalism, including:

- He won his category in the 2019 Young Researchers Summit of the University of Porto.
- Veiga de Almeida University shared his bachelor's thesis as an example of academic excellence.
- His bachelor's and master's thesis received the highest score in his class.

Other publications by Caio Sampaio:

- *The Future of Gaming*, eBook published by KeenGamer – Project manager and editor.

- *Video Games: The Future of Documentaries*, essay published by the University of Waterloo through its *First Person Scholar* project – Author.
- *Enfim, Jornalista*, eBook published by iVentura – Author of one chapter.

Now, he's pursuing a Ph.D. to continue his research on interactive media. He's also seeking lecturing and public speaking opportunities. You can contact him at contact@caio.sampaio.net.

FIGURES

THIS BOOK'S UNLIKELY INSPIRATION

- **Figure 1.** Morio. 1968 *Lotus 49B*. March 7, 2013. Photograph. WikiMedia Commons. Castle Donington, Leicestershire, England. https://fr.wikipedia.org/wiki/ Fichier:Lotus_49B_front-left_Donington_Grand_Prix_Collection.jpg.

CHAPTER 4: 'DISHONORED 2' CAN HELP YOU BE A BETTER VIRTUAL REALITY JOURNALIST

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- **Figure 4 – left.** id Software. *Wolfenstein 3D (DOS) – online game – Retro Games*. Video game screenshot. RetroGames. https://www.retrogames.cz/play_408-DOS.php.
- **Figure 4 – right.** ZeniMax Media. *The art of Wolfenstein II*.

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