Exploring the Influencing Factors of Misleading Information Dissemination and Revealing the Truth: From the Perspective of Self-designed Game

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Abstract: In this day and age, people often blindly follow the information they pick up accidentally or intentionally on the Internet or in newspaper headlines, regardless of whether it is true or false. Because the media may lie, many times these sources of information are wrong, such as in modern elections, when politicians use emotional, ethical, and logical strategies to spread obvious misinformation but can easily provoke prejudice in the population. People are too busy to spend time exploring the truth, and they tend to immediately identify with the headlines that catch their attention. At the moment, most people blame the journalists and media who publish misinformation, but the underlying motives are unclear. This paper aims to study the factors affecting the spread of misinformation through a self-designed game, comprehensively explore both sides of the conflict between misinformation and truth, let people understand the possible truth hidden behind lies and ambiguous facts through interaction with virtual characters and game mechanics, and clarify the role and responsibility of freelance journalists in reporting major news events, as well as examine the public reaction.

Keywords: Misinformation, Game Mechanics, Public Reaction.

1. Introduction

Named after the famous catchphrase of the popular cartoon character GI Joe, "Knowing is half the battle," the term "G.I. Joe Fallacy" was coined in 2014 to deal with these sorts of situations where our behavior does not match up with our knowledge and beliefs [1]. It also refers to the misguided notion that knowing about a bias is enough to overcome it [2]. In other words, individuals may possess knowledge about confirmation bias, which entails seeking information that validates preexisting beliefs; however, they still succumb to misinformation or fake news that aligns with their political or nonpolitical views. For instance, an individual may harbor aversion towards countries U and J while being aware of confirmation bias and misinformation. However, they are highly likely to embrace misinformation that specifically denigrates countries J and U due to its alignment with their personal views. Another real-life example is the misinformation surrounding the credibility of the newest 5th generation stealth fighter, the F35. Many erroneously attribute claims of failure to Pierre M. Sprey, who was neither involved in designing these aircraft nor an aerospace engineer. Despite this, his prominent media presence and exploitation of his Pentagon affiliation led to widespread belief in his

assertions. The only mention of him in valid sources based on unclassified information was related to his persistent attempts to advocate for his original plan for the F15 fighter, known as the F-XX, which never materialized publicly [3]. However, people continued to place trust in his statements due to confirmation bias formed by a viral issue that supported Pierre's view on reliability and usefulness of simple and battle-hardened military hardware over newer and more complex weapons systems such as air-to-air missiles or the brand new M16 rifle during the 1960s. This biased perspective ingrained itself in millions of Americans' minds, causing them to selectively believe news or facts that align with this viewpoint despite being aware of potential biases and misinformation. In this research, the self-deigned game Project Media aims to delves into the complexities surrounding misinformation, fake news, and the elusive nature of truth within society. While individuals may believe they are immune to the dissemination of false facts, this is not the case. It is impossible for people to remain completely unaffected by propaganda or misleading information from various sources. Although some may underestimate the significance of misinformation, it is crucial to recognize that words uttered by media outlets or journalists hold substantial weight. In reality, not everyone possesses the luxury of time required for fact-checking every piece of information encountered on the Internet; consequently, leading to a widespread misguidance perpetuated by those who claim veracity. The significance of this research lies in two aspects. Firstly, it helps us understand the profound impact of misinformation and fake news on individuals and society, raising public awareness of the importance of critical thinking and information verification. Secondly, by exploring the mechanisms and spread patterns of misinformation, it provides valuable insights for developing effective countermeasures and regulatory policies.

2. Psychological Inspiration for Game Design: Flow Theory

Flow refers to the spirit that people experience when they are immersed in something or a goal that they are working on at the moment, and they are fully engaged and enjoying it [4]. According to Ma, American psychologist Mihaly Csikszentmihalyi put forward flow or immersion theory in 1975 [5]. Immersion or flow is defined as when an individual is affected by a specific environment, becomes dependent on the target when attracted by the target, loses the perception of other things within a certain time range, and only interacts with the target. In his book, Csikszentmihalyi took the game experience as his research object, arguing that players in games will get a stronger sense of immersion and engagement [6]. In this game, gameplay-wise, the article writing, and searching are the primary gameplay loop; however, the designer included more daily life gameplay, much like what a Jrpg title would do normally. By adding the daily life gameplay element, the designer can mix in the off-topic elements of daily life and on topic news article creation together to ease out the tension you get when playing the article creation. The article creation part is rather tense and whenever players start one with their action opportunity, they are stuck within the game mode unless they want to leave early and waste an opportunity in game. If this cycle repeats without any other element, the game will lose its flow rather quickly. Players would only play for a tiny bit of time and get bored or need rapid breaks to stay away from the brain consuming decision making gameplay. Don't get me wrong though, decision making is an incredibly fun and cool experience, but when you look at other games on the market, they all have their own sorts of different gimmicks to keep the flow going.

Figure 1: Narrative Design in Detroit: Become Human.

Taking *Detroit become human* for example, the narrative-driven game has its primary focus on decision making within a limited period before it runs out (Figure 1) [7]. However, despite this being the primary focus, they have all other kinds of elements to keep the gameplay flow going such as quick-time events, investigation, or a new event into the conversation gameplay [6]. Similarly, the author incorporated the daily life elements in game to promote an overall better flow to the game itself. Players won't be completely stuck with a singular play style of a game but instead get to enjoy multiple aspects whenever they like. This would diverse the number of choices players get in a game, granting them more freedom to decide what they think is the best option for their current time, making the gameplay more interesting rather than confining players into one singular option only. Players would now have an opportunity to see the effects of their own work on the streets when they are walking and have a sense of purpose for their own income with every single publication they give and be able to use it on items in game that will then hold sentimental value within them. The comments they would see from the public when existing in their studio will give the player's an impression of just how much effect their words can have on the public, giving them the sense of why misinformation can be lethal and powerful without telling them directly.

Flow theory Progressive difficulty: To achieve a better flow, I made public perspective and the amount of undesired information appearance also as mechanics that only gradually increases as the player progresses with their publication. The perspective won't just turn 180 degrees around overnight. Instead, it will only increase by an acceptable amount for every publish that the player has done towards a direction they desire. The point is players will make mistakes and the information they used can accidentally work the other way around them and whenever this happens, the difficulty can't just instantly be tuned up to a completely different level than what the players can handle. The change of public perspective towards the undesired side that the player didn't want will be subtle but noticeable for the players to realize that his directions are wrong. By doing so, it can keep the difficulty of the game in a decent state and keep engaging gameplay that the player can then handle. As the difficulty increases, players will gradually encounter more information that they don't want to use that will work against their perspective of the news; at this point, the player would need to be more vigilant than before and spot the errors quickly. This will be a gradual process to promote a more engaging gameplay and keep the general flow around.

3. Game Design: Media Project

3.1. Setting

As a journalist, your role involves writing newspaper articles or online publications for public consumption. However, you do not have to report everything as truthfully as you should. After all, it

can be difficult and time consuming to dig deeper into certain news, but who cares when you just scratch the surface and then immediately publish a big new article to make a lot of money? The choice is yours. Fortunately, there is a conflict going on somewhere on earth, and various channels are reporting it with the latest information. This gets you interested and decides to write your own article online to publish it and hopefully make a huge profit. However, be warned: everything you say in print or online can be one of the sources that skews public opinion to one side or the other. Overall. The basic rule is that you should try to avoid deflecting public opinion too far from the misinformation side, and the rest is up to you. You can maintain a neutral attitude to stabilize public opinion while encouraging dissenting opinions to keep people thinking. Or heavily towards the truth where the sound of the misinformation side is completely drowned out. The following gameplay showcases the daily work and life cycle of a journalist character:

- Research the news or not;
- Write an article for the newspaper. Note: The article will affect how the public views certain things and will affect your next publication, and big news equals big money;
- Post your writing and wait for sales, which is your income;
- Use your income to pay for rent or upgrade your setups for researching quicker and go outside buying daily needs or entertaining yourself;
- Go outside and meet new people (potentially information holders) or just enjoy yourself by going to the cinema or places for entertainment. Also buying groceries and daily needs.

3.2. Gameplay Mechanics

3.2.1. Research

Researching a newspaper here is a separate minigame itself as well. You will have to take up 1 action opportunity to start the minigame. In the minigame, you start off on a webpage ready to research. During the research, you will be presented with a search bar that you will use to type in specific words to access certain websites that will present useful information for your research. Entering a website will start a minigame of you highlighting information that you will write down to use in your article that can potentially be useful, but the catch is that websites will be biased sometimes. Biased information is not highlighted, but in the game mechanic it is hidden within information that players need to take time to read, catch, and avoid. Biased information could steer you off from your original plan of affecting the public viewpoint by a good amount, but sometimes it can be used to your advantage. You can use a bias detector after being bought from a store, but it can only be used up to a couple of times before it runs out of usages for the day. Additionally, the highlighting information part would use up energy of yours and after a certain amount of information searching, you could run out of energy to continue and proceed on with the designing article part. Researching the news will take up an action opportunity but you could just avoid it completely and skim through the surface of random internet webpages and create your own article. Searching the website without proper research will not take up an action opportunity, but the result of your article can vary greatly. It could work in your favor only by a bit or it can go in completely opposite directions. There remain some uncertainties in research. Each piece of information not only has its own side of tilt but also quality as well. Information that works in your favor also has quality in information. Quality means how persuasive it can be. Simple information only supporting your side without facts can be damning, as it only boosts your tilt to the public perspective by a tiny bit. However, with higher quality information, you can be more persuasive, and the amount of boost in your tilt from a public perspective can be more than what originally was planned with your information stock.

3.2.2. News Creation Gamification

News and journalism creation is the second part and the primary game mechanic that players will encounter. You will have to design your own news article format online before readers see it. The designing process is the most important part, as you must manage the space for the content you want to put up for the readers. The page is split into two quartiles, upper and lower. both taking around 50% of the page. The upper part of the page is what the readers would read instantly and consume the knowledge first. On the other hand, the lower quartile is something that people would only read last or sometimes not at all! (People are busy like what I have mentioned.) Furthermore, you will also have to manually size the information you want to post on top. Too small will lead to less attention being spent on that specific piece of information in the article, while too big will attract all the attention of others to that specific information, leaving the rest with none. Both space and size need to be carefully managed to achieve the desired outcome, or the results would only be upsetting. Furthermore, you could also write your own truthful perspective on the page, but the action could take some time. Additionally, the amount of information you could scavenge often consists of more than what you can fit on the page so choose carefully.

3.2.3. Public Viewpoint

The primary goal mechanic here is the public viewpoint. Public viewpoint is essentially how the public views certain things and how they would react to them. If you write something that comes to their agreement, then the sales of your newspaper article are going to be skyrocketing high. If your article doesn't align with their perspective, the sales would vary between either low or medium. Your news article will shift the initially neutral public towards one side of the situation. However, once the public is heavily leaning towards one side, it will be extremely difficult to shift them back, so make your choice wisely. Public viewpoint isn't directly shown in the game, but you would need to find it out by checking comments, listening to what people are talking about outside, and checking trends online. Different side shifts could lead to disorders in society as well, which can be reflected on the streets. Your words WILL affect how people think and act.

3.2.4. Social Life

Social life and personal life are all important as well. During your free time (if you decided to take a day off), you can do whatever you want essentially, but you could use this time to form relation bonds with others outside. Outside of your apartment, you can go shopping in a supermarket, go eat at a fast-food restaurant, read books (about history or others), or buy upgrades for your computer and items that can make your life easier. Furthermore, if you socialize with people around you enough, you could form a relationship with someone who knows insider information about the big news you are chasing. This information is mostly 80–100% factually accurate and rarely contains bias. Computer upgrades will save time and energy for you when researching topics, and eating at fast food restaurants can save you some money from cooking yourself. You can buy things from the grocery store to cook for yourself, but it will take up time and doing it yourself will grant you perks such as extra energy temporarily or permanently. opportunity whenever you do so. However, doing it yourself will grant you perks such as extra energy temporarily or permanently.

3.2.5. Uncertainty Public Perspective Change

Despite what many players might think, spotting undesired information can still be hard, and they would accidentally highlight, record, and use the information that would work against their theory or perspective. This is where uncertainty would come in. For both public perspective change and the

possibility of having wrong information in your article, both boggle with the player's decision-making and force them sometimes to take risks on using something or not. You could be awarded by having the correct information and even possibly get more persuasion tilt in perspective, or you could potentially get the wrong information that in return worked against your favor and messed with the overall perspective of the public. Either way, the change in public perspective isn't extremely high, but the amount of change could vary due to this and creates a good amount of balance between the award and the risk itself. Encouraging the players to take on risks and be awarded greatly for their success or be punished but still having the heart to carry on. The game doesn't have a huge risk factor implemented physically, like losing money or reputation or anything that's related to game status. Instead, the thing you alter is the ending of the game, which can either reward players mentally or make players feel defeated mentally as well. Moreover, details of the public's influence can be shown to bystanders on the streets when they chatter after reading your article, and you can see how your words really have affected them. The way the environment changes and acts towards the player can be rewarding and discouraging depending on how people depict them. There isn't an exact right but a definite wrong for sure. However, the definite wrong interpreted by me can be viewed as a positive result by someone else, which in return for them pushing the public's viewpoint towards the other side is something that's unwanted by him.

4.   Conclusion

Overall, the game serves as a form of mockery or satire targeting modern journalism, misinformation and the public whenever these elements come into their field of vision. The primary objective of the game primarily is to reveal the lies and truths that journalism or the media can spread with a touch of a finger on a mouse, which has the potential to shape the viewpoint of millions. However, in the meantime, billions around the world have the option to either believe in the lies or the truths. Regrettably, in the modern world, many individuals are easily influenced by a simple speech or text from an unreliable media and immediately becomes their primary source. One of the limitations of this study is that it mainly focuses on the analysis of the game's representation and influence, without conducting in-depth quantitative research to measure the actual impact on the audience. Future research could incorporate large-scale surveys and data analytics to provide more precise and comprehensive results. In the future, it is expected that with the continuous development of technology and changes in the media landscape, more sophisticated and diverse forms of media satire will emerge. Further exploration is needed to understand how these new forms can better promote critical thinking among the public and improve the quality of information dissemination.

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