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Abstract

In a world dominated by the huge influence of digital information, it is increasingly crucial to promote media literacy and digital awareness for young people. This capstone project presents an educational and interactive board game that can help teenagers identify misinformation, detect AI-generated images, detect biased texts, and engage with fundamental media literacy concepts through fun activities. Both competitive and cooperative aspects are present in the game, with four kinds of cards and other teaching aids that encourage critical thinking and informed decision-making. The main objective of this project is to combine entertainment with education by utilizing game-based learning strategies to equip teens with the essential skills needed to navigate the digital landscape effectively. This paper discusses the game's overall structure, rules, design choices, educational objectives, and theoretical framework. Additionally, it includes a comprehensive literature review that highlights the importance of media literacy in today's life and outlines the game development process. In summary, this game contributes to broader initiatives aimed at promoting digital citizenship in an engaging and accessible manner.

Introduction

In the 21st century, the ability to critically engage with the media has become crucial. Today's teens navigate a digital landscape that bombards them daily with an overwhelming amount of information. News, entertainment, advertisements, images, and social commentary dominate platforms such as TikTok, Instagram, and Facebook, often with minimal oversight or verification. As artificial intelligence continues to evolve, the internet increasingly features AI-generated images, deepfake videos, and text content that may be biased or manipulative. As a

result, many young people find it increasingly difficult to distinguish between what is real and what is fake, what is impartial and what is biased, or what is fact and what is opinion.

Unfortunately, formal education systems around the world often do not provide students with the necessary tools and skills to navigate this complex environment safely and thoughtfully. Media literacy—the ability to access, analyze, evaluate, create, and act upon all forms of communication—has become an essential skill for developing responsible digital citizens.

Nevertheless, traditional methods of teaching media literacy and digital awareness fail to fully engage teenagers, as they may view such instruction as abstract, unrelatable, or disconnected from their everyday online experiences. This situation presents a huge challenge for educators and communicators: how can we effectively equip young people with the critical digital abilities they need in a way that is informative, interactive, relevant, and enjoyable?

This capstone project seeks to address this challenge by introducing a competitive board game designed to enhance media literacy and digital awareness among teenagers. The game combines learning with play, engaging participants in tasks that mimic real-world digital experiences such as assessing the credibility of news articles, distinguishing AI-generated images from authentic ones, identifying bias in written content, and participating in spontaneous media-related challenges. Players receive guiding sheets to assist them in making informed decisions, promoting independent thinking while also encouraging collaborative learning. Upon answering questions correctly, players roll a die to advance, earning tokens and progressing toward victory through multiple rounds. The game is designed to be adaptable, accommodating both individual and team play, making it suitable for classrooms, workshops, or even for informal educational settings. By merging entertainment with purposeful instruction, the game aims to develop essential critical thinking skills in a way that is accessible and relevant to teenagers. This paper

examines the game's development process, the pedagogical rationale underlying its design, and the theoretical foundations that support game-based learning as an effective educational approach. Additionally, it reflects on the broader cultural and technological challenges that make media literacy a critical area of focus in contemporary society. In doing so, this project contributes to ongoing efforts in education and communication to prepare younger generations for a future in which the ability to evaluate media content is as important as literacy itself.

Literature Review

Interest in the relationship between media literacy and game-based learning approach is growing among scholars. They are exploring how games can enhance critical thinking, digital awareness, and the ability to distinguish between real and false information. I have drawn inspiration for my kid-friendly board game from various studies demonstrating how games can be used as teaching tools to promote media literacy and digital awareness. These studies highlight the development of game-based learning and illustrate how this genre is influenced by innovative decisions and established norms. The findings of significant studies are synthesized in this literature review, which showcases my understanding of these various methods, their historical context, and their connection to my board game project.

To lay the groundwork for understanding game-based approaches to media literacy, it is essential to first investigate comprehensive studies that assess the overall impact and design of digital literacy games. A recent study conducted by Costa et al. (2017) examines the potential of game development to develop children's media and information literacy (MIL) competencies. Their research, which is part of the 'GamiLearning' initiative, demonstrates that engaging students in the game-making process can promote critical thinking, effective digital identity

management, and online safety awareness. The findings indicate that the act of creating games significantly improves students' media literacy skills, as evidenced by a rigorous methodology involving pre-and post-tests. This approach aligns with the goals of my board game project, which seeks to educate participants on media literacy and cultivate critical thinking in online contexts. Inspired by this study, I intend to integrate game design elements that will facilitate active engagement with the material, thereby reinforcing participants' understanding of different media literacy principles.

Likewise, a recent study conducted by Glas et al. (2023) explored the effectiveness of digital games in enhancing media literacy, with a particular emphasis on the identification of false information and the promotion of online safety. The authors highlighted the significant advantages of integrating interactive gaming experiences with the development of essential skills related to media literacy education. This research provides valuable insights that are crucial to my strategy for developing a game that not only incorporates these fundamental components but also includes advanced mechanisms for detecting misinformation. It is increasingly clear that digital games have the potential to serve as powerful educational tools. They can facilitate the dissemination of critical knowledge while also equipping players with the practical skills necessary to effectively navigate the complexities of the digital landscape. I am dedicated to contributing to this important discourse on media literacy and online safety. It is my aspiration to develop a game that not only educates players about these vital issues but also empowers them to become informed and responsible participants in the online community. By fostering critical thinking and enhancing media literacy, this initiative could play a significant role in creating a more informed and safer digital environment for all users.

Furthermore, augmented reality (AR) has increasingly gained traction in the realm of media

literacy games, serving as a powerful tool to create immersive and interactive learning environments. A significant example is "Escape the Fake," an augmented reality escape room game designed to educate teenagers about misinformation, as highlighted by Paraschivoiu et al. (2021). In this creative game, participants are tasked with solving puzzles rooted in real-world media challenges, such as fact-checking and source evaluation. The immersive and narrative-driven design of "Escape the Fake" underscores the premise that integrating interactive and story-based elements enhances the learning experience, thereby effectively engaging players. While my project involves the design of a board game rather than an augmented reality application, I intend to utilize narrative and interactive problem-solving elements extensively to maintain player engagement and facilitate deeper learning.

Exploring mobile apps and other types of games in this genre is important for understanding diverse strategies to engage users and enhance the effectiveness of media literacy education across various platforms. The research on FakeYou, a gamified smartphone application designed to enhance resistance to misinformation, is another useful and contributing creative solution that provides valuable insights (Clever et al., 2020). This mobile application enables users to create fictitious headlines and compare them with legitimate news headlines, thereby facilitating an understanding of the complexities associated with disinformation. The emphasis on active learning, particularly in the context of headline generation, significantly influences the design of my own game. My aim is to develop a game that fosters critical thinking and elucidates the cognitive processes involved in media evaluation. By integrating tasks that assess players' abilities to differentiate between false and authentic news, my board game aims to increase awareness of disinformation tactics.

Pomichal and Trnka (2022) also illustrate the effectiveness of game-based learning in

addressing misinformation through their analysis of the card game called "Follow Me." This game, which simulates social media dynamics, is specifically designed for high school students and utilizes inoculation theory to equip players with the skills to recognize fake information. The game's relevance is underscored by its depiction of how misinformation proliferates in the digital age, which aligns closely with the objectives of my thesis. By integrating analogous scenarios into my board game, I aim to provide players with a comprehensive and realistic framework for understanding the mechanisms behind the dissemination of misinformation on different social media platforms.

Similarly, in their recent study, Ma et al. (2023) investigate a game developed to address misconceptions surrounding COVID-19, focusing on the application of inoculation theory in combating misinformation. Inoculation theory serves as a robust framework for media literacy games by exposing individuals to weakened counterarguments, thus enhancing their resilience against more formidable misinformation. I intend to integrate the efficacy of this approach into my game design. Drawing upon the "vaccination" strategy articulated by Ma et al., my game will provide players with the various necessary tools to recognize and refute misinformation through the presentation of controlled examples. The organization and educational objectives of my board game will be informed by this innovative and scientifically validated inoculation methodology.

In their research on a card-based role-playing game designed to enhance critical thinking skills in communities impacted by COVID-19-related disinformation, Angelelli et al. (2023) also, like in the previous case, examine the crucial role of critical thinking in media literacy games. Their findings demonstrate that such games can effectively challenge players' preconceptions while fostering critical thinking abilities through fictional scenarios that

encourage decision-making and problem-solving. This approach aligns with my main goal of promoting critical thinking with the help of interactive experiences. By incorporating role-playing elements, the game enables participants to simulate real-world media interactions, thereby improving their ability to critically evaluate digital content and make informed and accurate decisions.

Finally, De La Hera et al. (2024) present a comprehensive systematic review of digital literacy games, encompassing an analysis of over 30 studies that investigate their impact and design. The review underscores the significance of thematic design and identifies essential subskills, including information literacy, technical proficiency, and critical thinking. The insights garnered from this review will inform the development of a game that not only addresses the issue of misinformation but also integrates a broader range of digital literacy skills. Additionally, their focus on evaluating the effectiveness of these games will aid in the creation process of assessment measures to ascertain the extent to which my board game fosters media literacy and critical thinking.

In summary, the existing literature on media literacy games outlines various innovative methods and approaches aimed at enhancing digital literacy and addressing misinformation. These methodologies include immersive storytelling, interactive problem-solving, game creation, and inoculation theory. The insights derived from this literature will significantly inform my game design process. My objective is to develop a board game that not only educates children about media literacy but also equips them with the essential skills required to navigate the digital landscape responsibly, a crucial skill in today's world. The literature underscores the importance of fostering active learning and critical thinking among young players, which will serve as guiding principles in the development of the game. By integrating various approaches, my game

will serve as an innovative and valuable tool for promoting media literacy among children and teenagers. It will help them identify false information and make informed decisions in an increasingly complex media environment.

Methodology

While digital games have become increasingly popular among teenagers, I have chosen to develop a board game instead of a digital version for several compelling reasons. Firstly, board games have gained significant popularity among teenagers in Armenia, specifically in educational centers and youth clubs that encourage screen-free group activities. These games not only foster face-to-face communication but also stimulate collaborative learning, which aligns closely with the goals of this project. Secondly, although the game may involve occasional smartphone usage—for tasks like confirming facts or conducting quick online searches—it does not depend entirely on technology, unlike traditional digital games. This characteristic enhances accessibility in classroom settings, where students may not have individual devices or constant internet access. Furthermore, board games promote slower, more reflective thinking and discussion. Players are often required to explain their answers verbally, which fosters deeper engagement. In contrast, fast-paced digital games can lead to passive interactions characterized by quick clicking or guessing. The board game format offers opportunities for more meaningful learning experiences focused on media literacy and digital awareness. Ultimately, it effectively supports both the educational and social dimensions of my project in an inclusive and interactive way.

The board game was developed through a multi-stage design process that prioritized educational content and user experience. The objective was to create a game that teaches

essential concepts of media literacy while appealing to teenagers through interactive gameplay and modern relevance. This section discusses the process of developing, designing, prototyping, and play-testing the game, emphasizing its iterative nature. From brainstorming and research to the creation of card types and rules, each step was guided by media literacy frameworks and feedback from the initial testing. Playtesting with peers and teenagers was crucial in refining both the content and format of the game, ensuring clarity, challenge, and enjoyment. The process highlights the balance between educational objectives and practical design choices, resulting in a game that is both informative and competitive and adaptable to various learning contexts.

The project originated from a crucial educational issue: the lack of interactive and hands-on tools that enable teenagers to critically evaluate digital media. As teenagers increasingly consume news and information from diverse social media platforms, they become vulnerable to disinformation, especially if they lack the skills essential to differentiate fact from fiction. This issue is particularly urgent in conflict-ridden regions like Armenia, where media manipulation is used as a weapon. During times of war or political tensions, adversaries often spread false news, AI-generated images, or emotionally manipulative disinformation to demoralize citizens or incite panic. It's not uncommon for enemies to circulate altered images or videos showcasing destruction, casualties, or fabricated victories to sway public opinion and instill fear. In this context, equipping Armenian youth with media literacy and digital awareness skills is not only an educational objective but also a means to foster social resilience. By learning to fact-check sources, identify AI-generated content, and discern biased narratives, young people can enhance their ability to critically engage with the overwhelming volume of information they encounter—especially during periods of national vulnerability. This realization led to the creation of an educational board game centered on real-world digital dilemmas, aiming to cultivate a generation

of more thoughtful, skeptical, and digitally literate citizens. Early research focused on identifying the types of misinformation and digital deception most relevant to today's teens. Attention was particularly given to the forms of media with which they are most familiar, such as viral social media messages, altered photos, and emotionally charged content. Additionally, a review of academic literature on media literacy, fake news detection, and game-based learning was conducted to establish a strong theoretical foundation for game design. The research phase also included exploring how educational games can effectively facilitate the internalization of critical thinking skills in enjoyable and memorable ways.

The second stage of the project focused on defining the game's structure, mechanics, and logic. The original concept envisioned a purely competitive experience, where each player would race independently to collect a specific number of tokens to win. This format was chosen because competition tends to enhance engagement, motivation, and focus among teenagers. However, during the initial testing sessions and feedback discussions, it became clear that some players preferred working in pairs or small teams. Team play encouraged more discussion, allowed players to learn from one another, and created a collaborative atmosphere while still maintaining the excitement of gameplay. As a result, the final version of the game accommodates both individual and team play, making it adaptable to different group dynamics and classroom environments. The main gameplay loop revolves around answering questions from four unique card types, each designed to reflect a specific media literacy skill relevant to today's digital landscape. After correctly answering two cards, players roll a die to advance on the board. Completing a full round earns them a token. The first player or team to collect a predetermined number of tokens wins; however, the ultimate goal is to promote critical digital thinking through these tasks, with every aspect of the game's design aimed at achieving that

objective.

1. News Check Cards - "Fact or Fiction?": These cards challenge players to analyze short news excerpts to determine whether they are true or fake. Players must consider factors such as the source of the article, source, publication date, and overall plausibility. This card type is designed to develop the skill of news evaluation, which is crucial in a digital environment filled with clickbait and misinformation. Many fake articles use emotionally charged language or mimic legitimate sources to appear trustworthy, and these cards help players learn to detect such strategies. Guiding sheets provide tips, including checking the date, verifying information through multiple sources, and spotting sensational language.

"New Breakthrough in Cancer Treatment!"
Author: Ryan Kaji February 10, 2024

Headline: "Scientists Discover New Therapy That Reduces Tumors by 80%!"

Scientists have announced a new cancer treatment that shrinks tumors by up to 80%. The therapy, called "Gene Target X," uses tiny robots to attack cancer cells while leaving healthy ones unharmed. Experts believe it could revolutionize medicine. "You won't believe how this works!" writes youtuber Ryan Kaji in his article about the research.

FAKE FAKE FAKE

Why It's Fake

The information is true, but Ryan Kaji is a child YouTuber known for reviewing toys, not a medical expert.

He has no background in science or medicine, making his article unreliable.

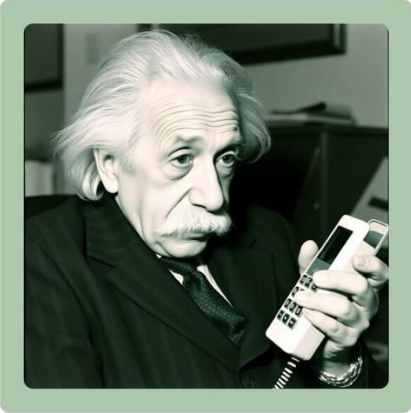
Lesson: Always check the author's credentials before trusting medical news!

(example of a "Fact or Fiction" card)

2. Image Check Cards - "AI or Authentic?": As artificial intelligence tools become more sophisticated, it is increasingly difficult to distinguish between real images and AI-generated ones, even for adults. These cards present players with an image and ask them to identify

whether it was created by AI or is an authentic image. This card type trains players to recognize visual anomalies or unlogical details. The purpose of these cards is to build visual literacy and skepticism. Misleading images can be used in wars or political campaigns to manipulate public perception, making this skill particularly relevant and essential for young people in contexts like Armenia, where fake images have circulated during past conflicts.

Picture of Albert Einstein



FAKE FAKE FAKE

Why It's Fake

While telephones existed during Einstein's lifetime (1879–1955), smartphones did not: they were invented long after his death.

If the phone in the image resembles a modern smartphone, it is historically inaccurate and likely AI-generated.

No real photos exist of Einstein holding any type of phone, making this image suspicious.

Lesson: Always verify the technology present in historical images to assess their authenticity!

(example of a "Ai or Authentic" card)

3. Bias Check Cards - "Biased or Balanced?": This card type focuses on analyzing short texts for bias. Players must determine whether a passage presents information neutrally or uses language that suggests a particular stance or agenda. These cards help players develop critical reading and interpretation skills by examining tone, word choice, and the omission of key facts. This exercise aims to enhance awareness of how language can be subtly manipulated to advance a narrative. In an era when much online content, especially on social media, is driven by opinion

and agenda, this card type trains teenagers to question and reflect on the framing of what they read. Guiding sheets provide examples of biased versus neutral phrasing and assist players in identifying emotionally charged or persuasive techniques.

Headline: "City Cuts Funding to Useless Art Programs While Boosting Police Budget"

In a long-overdue move, the city council has finally ended wasteful spending on so-called 'art programs' that served no real purpose. Instead, the money will now support the police department, which actually protects citizens. Taxpayers are relieved to see their money being used more wisely.

BIASED!

Why It's Biased

This article uses emotionally loaded and opinionated language like "useless," "so-called," and "finally ended wasteful spending." It presents only one side of the issue and frames the art programs negatively without explaining their value. A balanced article would include quotes from both city officials and art program supporters, offering facts rather than strong opinions.

(example of a "Biased or Balanced" card)

4. Penalty Cards - "Digital Penalty": To introduce unpredictability and encourage active engagement, penalty cards require players to complete spontaneous tasks related to media literacy for a duration of two minutes. First, they break up the routine of straightforward question-and-answer gameplay to add variety. Second, they test players' ability to recall and apply what they have learned in a more open-ended manner. Penalty cards creatively reinforce key concepts while keeping the gameplay lively. They also encourage players to articulate their thoughts, which strengthens memory through verbal expression.



(examples of "Penalty Cards")

Additional Game Elements: The title of the game, “Fake or Fact,” was chosen for its simplicity and clarity, as well as its direct connection to the core theme of media literacy. It captures the essence of what players will do throughout the game: evaluate pieces of information and determine whether they are truthful (fact) or misleading (fake). This name reflects the real-world challenge teenagers face when navigating the digital landscape, where each scroll or click could expose them to misinformation. A short and catchy title also makes the game more accessible and memorable for the target audience, as teenagers are more likely to engage with a game that has a relevant and straightforward name. Additionally, “Fake or Fact” is a phrase commonly used in popular media and online discussions, providing familiarity while reinforcing the educational goal of critical evaluation. This title serves as a continuous reminder of the game's purpose: to develop the ability to question, verify, and reflect on the information they

encounter in their daily digital lives.

Each player or team receives a Guiding Sheet, which acts as a quick-reference educational tool. This sheet explains how to evaluate images, detect fake news, spot bias, and complete penalty tasks. Including this element ensures that the game remains accessible to those who may not possess strong media literacy skills, transforming every player into an active learner rather than just a competitor.

The dice mechanic adds randomness and pacing to the game, while the token system keeps players goal-oriented and motivated. By combining these mechanics and card types, the game aims to strike a balance between fun and functionality. Every decision—from the competitive format to the color-coding of card types—was made with the goal of maximizing both learning and engagement.

Game Description

As mentioned before, the game's target audience is the teenage group and every single card was designed in a way that can be understandable and useful for this specific target group. However, those who are older and wish to enhance their media literacy or English language skills can also play the game. The game requires a minimum of two players/teams and can accommodate a maximum of six players/teams. The choice to have the option to play in teams as well was based on observations made during the testing phase, where it became clear that some players preferred collaboration, particularly when they felt uncertain about some media literacy concepts. Team-based play encourages discussion, collective reasoning, and peer learning, making it ideal for classroom or workshop settings where players can learn from each other. In contrast, the individual mode promotes independent critical thinking and decision-making. By

offering both modes, the game accommodates different learning styles and environments, ensuring it remains inclusive and educational for a wide range of players.

To start the game, players need a game board where there are different card spaces. They also need a die that players need to throw to see how many steps they need to take; four out of six options show a specific number from one to four, the next side shows that a player needs to skip the turn, and the sixth side tells to throw the dice one more time. As mentioned earlier, four different card decks are also needed, each in their specific color. Tokens are another essential part of the game, as when a player or team accomplishes a successful round around the board, they earn a token. The games included an hourglass as well, needed specifically for penalty cards, game pieces that players need to move around the board, and a phone or tablet in order to check information, accomplish challenges, and have overall access to media. Each player/team also receives a guiding sheet that contains information on how to check different pieces of information, starting from news to images.

Before starting the game, players need to decide whether to play individually or in teams. If playing in teams, each team will earn tokens collectively and will move across the board as a single unit. Once the mode of play is chosen, players should place the game board in the center and shuffle the four decks of cards into separate piles. Each player or team will receive a fact-checking guide that offers helpful strategies for evaluating articles, images, and written content. All players must place their game pieces at the Start position, and the group should agree on the number of rounds to play, with a suggested maximum of six rounds.

Here are two pages from the rules book that showcase how to play the game in a detailed way and how the winner is decided, and the ready board.

3

How to Play

Each player/team takes turns rolling the die and moving forward on the board.

Step 1: Roll the Die

- On your turn, roll the die and check the result:
- A number (1, 2, 3, or 4): Move forward that many spaces.
- "Try One More Time": Roll the die again!
- "Skip Turn": You lose your turn and wait for the next round.

Step 2: Land on a Card Space

- Pick a card from the deck that matches your space:
- Real or Fake News? → Read a news article and decide if it's real or fake.
- AI or Authentic? → Decide if it's a real photo or AI-generated.
- Biased or Balanced? → Decide if a short text is biased or balanced.
- Penalty Card → Follow the fun challenge on the card!

Step 3: Solve the Challenge

- Think carefully and use fact-checking methods to decide your answer.
- Say your answer out loud and justify your answer.
- Important: Your answer is only counted as correct if your explanation matches the justification written on the back of the card.
- If the answer is correct, the player/team stays in their space until their next turn. However, if the answer is wrong the player/team moves 2 spaces backward waiting for their next turn.

Step 4: Penalty Card Rules

- If you pick this card, use the hourglass to complete the task in one minute.
- If you complete the task in time, you stay in your place and continue playing.
- If you fail, you must move 3 spaces backward.

Step 5: Keep Moving If Your Answer is Right

- Once you complete your challenge, your turn is over, and the next player/team rolls the die.

(third page of the rules book)

4 Winning the Game

- Every time you complete one full round around the board, you earn one token.
- The game continues until someone (or a team) collects all the tokens based on the number of rounds chosen at the start.
- The first player or team to collect all tokens and finish their final round wins the game!

5 Important Tips for Players

- Think like a detective! Use smart ways to check if news, pictures, or text are real, fake, biased, or balanced.
- Use your fact-checking guide paper to help you make better decisions.
- Work as a team when playing in groups—talk through each decision and agree on one final answer.
- Watch the time! If you get a Penalty Card, you only have one minute to complete the challenge.
- Most importantly—have fun while learning!

FAKE OR FACT

(forth page of the rules book)

FACT-CHECK GUIDE

HOW TO ANALYZE INFORMATION

News Article

- Check the date – Is the article recent or outdated? Does it correspond to information provided?
- Check the author – Is the writer a real journalist or expert?
- Check the headline – Does the headline match the content?
- Search on credible sources – Look it up on trusted websites like BBC, Reuters, AP, or national news outlets.
- Cross-check facts – Can you find the same information on more than one reliable site?

Images

- Look closely at the details – AI images often have mistakes like blurry hands, mismatched eyes, missing fingers, or weird backgrounds.
- Check for inconsistencies – Do the shadows and lighting look natural? Are objects shaped strangely?
- Search suspicious parts – If the image includes a person, search their name and verify details like birthdate, job title, or real photos.
- Search what the image shows – Use reverse image search tools or look up the scene, event, or people shown in the photo on reliable websites to see if it really happened.

Text – Is It Biased or Balanced?

- Look at the tone – Is it calm and informative, or emotional and one-sided? Biased writing often tries to convince or manipulate.
- Does it show both sides? – Balanced texts mention different opinions or perspectives, not just one view.
- Look for facts and sources – Is the writer backing up what they say with real evidence, or just using personal opinion?

FAKE OR FACT

(fact-check guide sheet)



(the board)

Creative Goals

1. Develop and enhance media literacy and digital awareness in teenagers:

The game is designed to help teenagers grasp how media affects them and to build their skills in thinking critically about digital content. This way, they can develop informed and responsible online habits.

2. Help teenagers distinguish between real and fake news:

The game is designed to educate teenagers on the identification of misinformation, disinformation, and bias. Additionally, it will equip them with practical tools to verify sources and assess the credibility of digital content effectively.

3. Educate on proper social media use:

Teenagers will learn how to manage their privacy settings, protect their personal information, and handle issues like cyberbullying and online reputation, encouraging responsible use of social media.

4. Create an entertaining and engaging experience:

By adding fun elements like challenges, role-playing, and friendly competition, the game will keep teenagers excited to play and learn. This way, education and entertainment come together in a way that feels enjoyable and engaging.

5. Foster critical thinking and decision-making in digital contexts:

The game provides players with real-world digital scenarios that foster critical thinking skills. By engaging with these challenges, players can gain the confidence they need to navigate complex media environments effectively.

6. Promote collaboration and discussion:

The game will promote collaboration and effective communication, enabling teenagers to share insights, discuss, and learn from different viewpoints.

7. Enhance English language skills:

During testing, both I and the teacher noted that the game also enhances English language skills in teenagers. The cards, written in English, require reading comprehension, vocabulary recognition, and spoken explanation, allowing players to practice their language skills in a

meaningful context. This focus on both media literacy and language development makes the game a versatile educational tool for media studies and English classrooms.

Focus Group and Feedback

To assess and improve the effectiveness of "Fake or Fact," I arranged a focus group session with children aged 8 to 15 at an educational center that organizes tutoring in various subjects, including English, math, and Russian. This setting provided a realistic environment to observe how young learners interacted with the board game. I prepared sample cards from each category and allowed the students to play while I observed their reactions, behaviors, and limitations. Overall, the experience was very positive—students were highly engaged, visibly excited, and enthusiastic about playing the game and finding right answers. It was rewarding to see them enjoy the game while interacting with media literacy details. However, the session also revealed several areas for improvements. One main issue I noticed was that many players guessed the right answers without using reasoning or critical thinking. They would simply select an answer and move on, hoping to get it right by chance. This behavior undermined the educational objectives of the game. To address this, I included a new rule: an answer would only be considered correct if the player or team not only selected the right option but also provided a justification that corresponds to the explanation on the back of the card. This change encouraged deeper reflection and evidence-based reasoning. Another challenge arose from the structure of the gameplay. The game was originally designed for individual players, and collaboration was against the rules. However, I observed that the students were eager to work in teams, ask each other questions, and discuss their choices. Rather than discouraging this interaction, I recognized that teamwork made the game more educational and enjoyable, as players learned from one another. This insight led

to the introduction of a collaborative mode, allowing players to work together and collectively give their answers. Finally, I realized that some of the card examples were too advanced or complex for this age group, making it difficult for some players to participate meaningfully. After reviewing these cards, I removed or simplified those that were too hard to ensure the game remained fair, fun, and age-appropriate. Overall, the testing session was essential in shaping the final version of the game, allowing me to transform observations into practical adjustments that enhanced both its educational value and user experience.

Classroom Implementation and Educational Use

Fake or Fact is designed to be both entertaining and a versatile educational tool that can be effectively utilized in classroom settings, particularly in media literacy, digital citizenship, social studies, and English language classes. The game encourages students to critically analyze media content, verify facts, recognize bias, and understand the influence of artificial intelligence on digital media—skills that are essential in today’s media-saturated world. Teachers can use the game as a complementary activity to reinforce lessons on critical thinking, fake news, persuasive language, and online safety. The game's structure allows for flexibility based on class size and time constraints. It can be played individually to promote independent thinking or in teams to encourage collaboration and peer learning. In the classroom, teachers can assign students to groups and provide each group with guiding materials to assist in their analysis and justification of answers. Playing in teams fosters healthy debates and helps students develop communication and reasoning skills as they collectively determine whether an article, image, or statement is truthful, fake, biased, or balanced. Moreover, the language-based nature of the game makes it especially beneficial for language classes. During testing, it became evident that students

practiced reading comprehension, vocabulary, and argumentative speaking skills—particularly in English—while playing the game. This adds value for teachers looking to include interactive activities that enhance both subject knowledge and language proficiency. With minor adaptations, such as modifying card content or including region-specific examples, the game can be tailored to fit different curricula and age groups, making it a practical educational resource for schools worldwide. experience.

Conclusion

Developing Fake or Fact as my capstone project has been a transformative and interesting experience that involved much more than simply designing an interactive game. Throughout the process—from initial rules development to playtesting and refinement—I gained valuable insights not only about game design but also about how young people engage with topics such as media manipulation, misinformation, bias, and artificial intelligence. I realized that teenagers can effectively engage with these themes when they are presented in dynamic and interactive ways. I also learned the importance of flexibility in design. Initially, I envisioned a strictly competitive, individual-based game. However, through testing the game, I realized that incorporating teamwork allowed for a richer and more collaborative learning experience. Observing how players explained their answers, debated interpretations, and supported one another revealed that the real value of the game lies in the discussions and thought processes it encourages. Additionally, I recognized the essence of age-appropriate content and how subtle design choices—such as the wording of a card or the length of a task—can greatly influence player engagement. Fake or Fact is more than just a game; it serves as an educational tool designed to address an urgent and growing need. In an era where misinformation spreads rapidly and

artificial intelligence can generate convincing yet fake content, media literacy has become crucial. The game specifically targets teenagers, who are among the most active users of digital platforms and often the most vulnerable to media manipulation. This is particularly relevant in contexts like Armenia, where geopolitical tensions and conflict-related propaganda can shape online information. It is crucial to help youth develop critical thinking skills that enable them to assess information responsibly. The game's structure, based on realistic news articles, AI-generated images, and biased or balanced texts, simulates real-world scenarios, allowing players to establish abilities that can carry over into their daily media consumption. Key takeaways from this project include the importance of justification and reasoning in learning, the power of collaborative engagement, and the potential of board games to foster deeper educational outcomes when designed intentionally. It became clear that media literacy can be taught not only through traditional lectures but also through fun, interactive, and student-centered approaches that promote active learning.

In conclusion, Fake or Fact reflects my academic interests, creative abilities, and commitment to educational innovation. It has taught me about the complexities of designing for both enjoyment and learning, and it has demonstrated how useful games can be as tools for teaching. I am proud of the outcome and believe my board game has the potential to be utilized in schools, workshops, and youth programs to help teenagers become more thoughtful, informed, and responsible digital citizens.

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