CHAPTER I
Background

1.1 Background of the problem

The functions that virtual worlds fulfill in people's lives have expanded substantially in recent years. Before the emergence of the COVID-19 pandemic, people were increasingly devoting their time to virtual environments. Particular attention is paid to the metaverse as a future technology in the context of a possible mass exodus from real-world locations to virtual worlds. Metaverse, also known as the new internet which is a virtual environment where individuals can receive entertainment, interact with others, and even conduct business. A characteristic that differentiates the metaverse from its predecessor, the internet, is its potential to be explored in ways similar to our interactions in the real world. This will be achieved primarily through the continued advancement of virtual and augmented reality technology, which allows users to be transported into virtual worlds or have virtual elements integrated into the real world (Oleksy et al., 2023).

The idea of a metaverse has been around for thirty years. The term "metaverse" was first introduced in Neal Stephenson's science fiction novel Snow Crash in 1992. Today, certain components of the upcoming virtual world have been used extensively. Users can create personas, make trades, and buy and sell virtual real estate in Second Life, among other activities. These opportunities are also enhanced by modern virtual conversation platforms, including Decentraland and Sandbox, as well as VRChat. Additionally, recent years have seen an explosion in augmented reality (AR) gaming, exemplified by the popularity of Pokemon-Go, which allows smartphone users to navigate the real world in pursuit of virtual concepts. Simultaneously, there has been a substantial improvement in the quality and accessibility of VR systems, which has had a major impact on their gradual acceptance. However, despite the incredible technological developments, the general public has only just been briefed on the metaverse. This came to light when leading technology companies declared their initiation to develop their

own iterations of this technology, which includes the broad but somewhat vague concept of "the next evolution of social relationships" as well as improvements to today's virtual environments (Barreda-Ángeles et al., 2023). Based on several previous explanations, researchers concluded that the metaverse as a new computer-mediated environment consists of a virtual "world" where people act and communicate with each other in real-time through digital representatives called avatars.

Social dimension of metaverse, particullarly its capacity to forward Real-time Multisensory Social Interactions (RMSI), that involve synchronous engagement and multiple senses such as hearing, touch, ND sight among two or more individuals, has garnered global coporate leaders attention. Mark Zuckerberg, as Meta CEO for instance, shows the metaverse as the social interaction ultimate pinnacle. The company's decision executives anticipate that the metaverse, with its capabilities for RMSI, has the potential to provide highest value to consumers and enterprises when compared to traditional two-dimensional (2D) computer-based platforms such as Skype, Discord, and Zoom. This perspective is undermined by financial analysts that predict a substantial shift in business dynamics from the 2D internet to the metaverse. Goldman Sachs says that the metaverse is expected to generate trillions of dollars in annual revenue. (Sheridan et al., 2021).

The metaverse is an immersive space merging virtual and physical realities, the users can engage in real-time interactions and experiences distance regardless and with many various elements. Think likely, it is able to revolutionize how we work, engage, and live in activities of leisure. Mark Zuckerberg envisions the metaverse as the next evolution on the far side of mobile internet, emphasizing its distinctive feature of creating a "sense of presence." This entails users having the ability to project themselves as holograms, allowing them to be present in an office without travel, attend a concert with friends, or join a gathering in their parents' living room to connect with reality. Microsoft and Facebook (which has since changed its name to Meta) are among the world's largest technology companies investing

billions of dollars in virtual hardware and software. Despite this, there are many other companies currently developing their own metaverse worlds, such as, Google, and TheSandbox. By 2022, Citigroup estimates that the metaverse could become an $8 trillion to $13 trillion addressable market by 2030, and companies such as Gucci, Nike, and Coca-Cola have also begun investing, developing products, and even building virtual spaces in metaverse (Ortiz, 2022).

VRChat is a popular product within the metaverse, boasting a user count of 430, 0008. The platform experienced significant growth in its user base during the pandemic. In May 2019, the majority of users (75%) were under the age of 35, with 43% falling below 25 years old, indicating a pronounced skew toward the younger demographic. Notably, the gender distribution is notably imbalanced, with 81.5% of users being male, although this aspect is not addressed within the scope of this discussion (Hiramatsu et al., 2022). VRChat serves as a platform where individuals can interact with others through avatars in a 3D computer-generated world using voice and gestures. Within VRChat, each user has the capability to construct diverse virtual "worlds," and fellow users can explore these creations. Access to the VRChat environment is possible either through a PC-connected head-mounted display (HMD) or a standard flat screen, utilizing VRChat Desktop mode. While Desktop mode has limitations in terms of immersive sensations and freedom of movement, users can still engage in voice communication and navigate the virtual world freely, similar to the experience with an HMD. Notably, one of VRChat's features is the ability for users to play together from distant locations by connecting over the Internet, providing a shared adventure for gadget enthusiasts, particularly during the Covid-19 pandemic (Hiramatsu et al., 2022).

VRChat offers users a digital environment, presented as chat rooms, where they can hunt their specific objectives. While VRChat comprise community-created activities like capture the flag, bowling and so on, its tendency is frequently towards role-playing games. The platform lets for

flexible avatar selection; users are able to effortlessly create various characters visually. In these chat rooms, the stories and narratives contructed during role-playing games are entirely at the carefulness of users, reflecting their creativity and determination. As these role-playing games start to lose their way (if they ever had any), players are blurring the variance between VRChat as a game and its role as a "software toy." Upon logging in the game, users notice themselves enveloped in a novel world, adoring the joy of escapism and exploration. The environment is the most part anonymous, allowing users to determine their identity, methode of interaction with the virtual world, and with whom they arrest. In spite of the fictional nature of this space, the experiences, conversations, and relationships formed within it hold genuine and tangible significance (Park, 2018).

The idea that video games can consume a significant amount of a player's time is a well-established phenomenon. Numerous players openly acknowledge spending hours immersed in a single game. Despite being relatively new, VR Chat has already amassed a community of dedicated users who invest substantial time in the virtual realm. Users frequently express the liberating experience of assuming any persona without fear of judgment in VR Chat. This opportunity has empowered individuals to be more vocal and extroverted within the software, a stark contrast to their potentially introverted behavior in real-life situations where approaching strangers for a conversation might be less likely (Park, 2018).

Nevertheless, the pleasure derived from VR Chat is not without its drawbacks, and these downsides might even surpass the positive aspects of the platform. When users begin investing more time and attention in building and nurturing their digital existence, the repercussions on their real-life identity and relationships become apparent. Depersonalization, derealization, and eventual disconnection are potential outcomes of establishing an identity and life within this virtual environment. The emergence of these issues can be unsettling as they unfold inconspicuously without evident signals or awareness. The situation becomes more concerning when users struggle to

distinguish between the boundaries of reality and their virtual lives. VR Chat can be used to complement existing social gaps in a user's life, but ultimately, the overall model or mentality is not sustainable. In the novelty of VR Chat, this is just a guess, but it's a common problem that arises in avatar-based and immersive video games.

The role played by anonymity in providing space for expression and interaction in VRChat is not trivial. A person's high degree of anonymity in VRChat makes them feel more free and brave to express and communicate. The consequences resulting from the absence of these boundaries are manifested in profit or profit disinhibition, which includes attempts to increase self-understanding and personal development, help resolve interpersonal conflicts and intrapersonal issues, or explore emotions and experience one's identity. It is reasoned by these users that creating an alter account or second account to follow accounts that seem inappropriate followed by their real accounts, often starts from a sense of pride. On the other side of the account, both of these are to avoid stalkers and have the freedom to stalk accounts they want to know about without having to reveal their identity. It is admitted that this second account was restricted only for those closest to them by uploading and doing something different from the main account to maintain the profile image that has been created (Bahar, 2018).

In today's world, instances can be found where social media platforms are utilized to disseminate spirituality among individuals. These platforms endeavor to connect spirituality with users' daily lives, thereby fostering a beneficial impact on their well-being (Sonica Rautela, 2019). For instance, a social media user can spread happiness or positive feelings by expressing admiration, affection, or approval towards another user. This sets off a chain reaction of happiness, where users transmit these positive vibes to others, resulting in a widespread "pandemic of happiness" across the globe in a matter of hours. Essentially, this cascade of happiness or positivity has a magnifying effect, creating an autonomous and dynamic network of joy,

motivation, positivity, creativity, and similar sentiments (Sonica Rautela, 2019).

Moreover, it would be unwise to assume that the fictional world is devoid of its own set of issues. These virtual realms are susceptible to problems such as hatred and discrimination. In fact, the anonymity provided by VR Chat can contribute to the fostering of a negative environment. An illustrative case is the meme-worthy Ugandan Knuckles, which exemplifies racism and stereotypes perpetuated by users in VR Chat, gaining notoriety on the internet. Users, while embodying the Ugandan Knuckles avatar, often adopt an "African" accent and engage in a ceaseless quest for their "da wae" and "queen." Although the intentions behind these actions may initially seem lighthearted and playful, instances where a group of individuals embodying Knuckles harasses a female avatar can be seen as crossing the line into inappropriate behavior. Currently, the game lacks comprehensive moderation (Park, 2018).

While the metaverse is currently undergoing development, certain components of it already exist in widely played video games like VRChat, introduced in 2017 on the Steam platform. Interestingly, video game developers play an important role in building the metaverse, given its primary nature as an addition of video games. It is needed to note that video games, in general, bring about various health and social concerns, including the normalization of violence, perpetuation of gender and racial stereotypes, gaming addiction, and other related issues (Grinspoon, 2020). VR, due to its nature and design of making virtual experiences feel realistic, can exacerbate many of these things. To appropriately navigate and regulate these technologies, society and, in particular, policymakers must fully understand the dangers associated with these technologies (and emerging dangers) (Ortiz, 2022).

The phenomenon of social interaction within virtual reality platforms like VRChat presents a compelling subject for research due to its growing popularity and unique implications for interpersonal relationships. However,

despite its increasing prominence, there remains a gap in understanding the nuanced dynamics, mechanisms underlying the formation and maintenance of bonds in the metaverse and conducting the information between interactant, such as how and what aspect that makes building bonds in VRChat can be deep and meaningful aside from other social media. Therefore, a qualitative exploration into VRChat's social interaction is warranted to delve into the complexities of how users navigate identity, establish connections or building bond, and sustain meaningful relationships in this digital environment. By investigating the multifaceted dimensions of social interaction within VRChat, this research aims to shed light on the underlying factors influencing the formation of bonds in the metaverse, conducting information, offering valuable insights into the evolving landscape of virtual socialization and its implications for individuals and communities.

Certain individuals assert that engaging in these games and becoming a part of the metaverse is a matter of personal choice, and individuals should willingly participate at their own circumspection, implementing necessary insurance for self-protection. Nevertheless, this elective stance may not go through for an extended period, drawing parallels with the course of social media. In the early 2000s, social media was merely an optional tool in people's lives. However, in less than two decades, there is now significant social compulsion for individuals to be active participants in this domain. To anticipate a greater risk of negative impacts from VRChat, it is necessary to conduct a study on "Building Bonds in the Metaverse: A Qualitative Exploration of VRChat's Social Interaction"

1.2 Formulation of the problem

Based on the background of the problem above, the problem formulation in this research is:

"What about real-time multisensory social interactions (RMSI) in the metaverse, especially in the VRChat platform?"

1.3 Research Objectives and Benefits

1.3.1 Research purposes

Based on the problem formulation above, the aim of this research is to describe and identify: The social Interaction through Real-time multisensory social interaction (RMSI) in the metaverse, in the VRChat platform.

1.3.2 Benefits of research

The benefits of this research are divided into two, namely, theoretical and practical benefits, the explanation is as follows:

1 Theoretical Benefits

   a. This research has significant theoretical benefits for VRChat users by providing an in-depth understanding of how real-time multisensory social interactions (RMSI) in the metaverse, especially in VRChat, impacts their experiences. The research results can provide insight into how the dynamics of these interactions relate to the development of social relationships in real life, allowing users to better understand how the metaverse on work

   b. For society as a whole, this research can provide a deep understanding of the process of metaverse, especially in the context of VRChat, on the users' social interactions. This can provide a basis for the development of policies that better manage the potential risks and benefits of metaverses.

   c. This research can provide theoretical contributions for future researchers in understanding how the evolution of social relations in virtual worlds can form a new paradigm in media studies, psychology and digital sociology.

2 Practical Benefits

   a. This research is expected to provide practical benefits to VRChat users by providing an in-depth understanding of how real-time multisensory social interactions (RMSI)

in the metaverse, specifically in VRChat, can influence their experiences and how this can influence the understanding of how Metaverse work. With this understanding, users can be more aware of the potential positive and negative impacts of their involvement in the metaverse.

b. This research is also expected to provide insight of the metaverse social interactions. This information can serve as a basis for the community to develop a more thoughtful approach to the use of the metaverse, taking into account the possible implications.

1.4   Writing system

The systematic discussion is a descriptive explanation that explains the content of each discussion. This is to facilitate discussion of research, which includes:

PIG,This chapter contains an introduction consisting of problem background, problem formulation, objectives and benefits of research and systematics.

CHAPTERII, this chapter contains a literature review consisting of a theoretical basis, namely theory related to the title of the research and previous research, namely previous research discussing the same topic..

CHAPTER III,This chapter contains the research methods that will be used, location and time of research, data sources, data collection techniques, data analysis and verification.

CHAPTER IV,This chapter contains data displays and discussions to answer the problem formulation, namely describing the social interactions of VRChat users in VRChat and the impact of social interactions of VRChat users in the real world..

CHAPTER V,onThis chapter is the closing section which contains conclusions and suggestions related to the research results.