



KKIK - FSRD

Jurnal
Sosioteknologi

Website: <https://journals.itb.ac.id/index.php/sostek/index>



Performativity of Virtual Community: An Analysis of Actor-Network Theory in NFT Virtual Community

Performativitas Komunitas Virtual: Suatu Analisis dari Teori Jaringan-Aktor dalam Komunitas Virtual NFT

Idhar Resmadi, Rendy Pandita Bastari, Lingga Agung, Luqman Rusdan Wiwaha

Visual Communication Design, Faculty of Creative Industries, Telkom University, Bandung

idharresmadi@telkomuniversity.ac.id

ARTICLE INFO

Keywords:

actor-network theory, nft
community, blockchain, crypto art

ABSTRACT

Visual artists used NFT (non-fungible tokens) to market artwork and build virtual community networks. NFTs are special certificates or licenses for digitally sold items. In this context, the presence of NFT creators has given rise to a virtual community involving many digital media activities. The phenomenon then offers a variety of new technology-based relationships (blockchain, metaverse, NFT, Twitter, Twitter Spaces, Discord, and Clubhouse) and human actors (artists, digital artists, and designers), which give rise to specific characteristics to interact with each other or market their artwork in a virtual community. This research aims to discuss the interaction process in the NFT virtual community to understand the NFT ecosystem based on digital media. The actor-network theory is used to understand the network relations between human and non-human actors interacting through various digital platforms. The results of this study showed that the NFT virtual community could not be separated from the presence of human and non-human actors.

INFO ARTIKEL

Kata kunci:

teori jaringan-aktor, komunitas
nft, blockchain, crypto art,
metaverse

ABSTRAK

Seniman visual menggunakan NFT (Non-Fungible Tokens) untuk memasarkan karya seni dan membangun jaringan komunitas virtual. NFT adalah sertifikat atau lisensi khusus untuk barang yang dijual secara digital. Dalam konteks ini, kehadiran kreator NFT telah melahirkan komunitas virtual yang melibatkan berbagai aktivitas media digital. Fenomena tersebut menawarkan berbagai hubungan baru berbasis teknologi (blockchain, metaverse, NFT, Twitter, Twitter Spaces, Discord, dan Clubhouse) dan aktor manusia (artis, seniman digital, dan desainer) yang memunculkan karakteristik khusus untuk berinteraksi atau memasarkan karya seni dalam suatu komunitas virtual. Penelitian ini bertujuan untuk membahas proses interaksi dalam komunitas virtual NFT dalam memahami ekosistem NFT berbasis media digital. Teori aktor-jaringan digunakan untuk memahami hubungan jaringan antara aktor manusia dan nonmanusia yang berinteraksi melalui berbagai platform digital. Hasil penelitian ini menunjukkan komunitas virtual NFT tidak lepas dari keberadaan aktor manusia dan nonmanusia.

<https://doi.org/10.5614/sostek.itbj.2022.21.3.4>

Introduction

Technological development affects creativity. Media innovations bring back a variety of new artistic expressions. Marshall McLuhan's technological determinism adage "medium is the message" states that technological developments also change or control society, including artistic expressions. The presence of blockchain, metaverse, and non-fungible token (NFT) technologies has encouraged new expressions of art, design, illustration, and digital content creation.

Blockchain technology has become a new decentralized space offered to artists, designers, illustrators, and content creators to express their work in the digital realm (Ginting & Sadono, 2022). Blockchain technology was used to authenticate the original content. One of the applications of blockchain technology is "Non-Fungible Tokens (NFTs)." NFTs have revolutionized how content is created, commoditized, exchanged, stored, and authenticated for digital content creators (Chohan & Paschen, 2021). The existence of blockchain technology also changes and transforms the series of supply processes to be more efficient, transparent, cheap, and easy because a product will be directly distributed from producers/creators to consumers and eliminating "middlemen" (intermediaries) (Arifianto S., 2019). In the context of NFT distribution, it allows the works of NFT creators and artists to be consumed by art enthusiasts without involving a curator or gallery. Thus, the entire economic value belongs to the NFT creator or artist.

NFT is a digital asset based on blockchain technology developed for digital artworks. Everything related to NFTs must be performed through cryptocurrency transactions. NFTs are special certificates or licenses for digitally sold items. In this context, NFTs that are part of cryptocurrencies virtually hold the license or authenticity of a product or work. All transactions were then carried out and recorded on the blockchain (Koran Tempo, October 15, 2021). NFTs have become a new driver for the birth of various works from digital creators exhibiting their artwork, including illustrations, motion graphics, design, illustration, short videos, animation, photography, and music. On December 16, 2021, CNBC Indonesia, stated that technology development utilizing recent technologies such as NFT and Metaverse has the potential to be developed in the future, especially in the education, human resources, and entertainment sectors. The presence of NFTs is to build a virtual community with various interactions and values in the virtual world (Zagalo et al., 2012).

NFTs were first introduced in 2014 by a platform called Counterparty, with the first NFT created titled "Quantuml." From 2017 to 2020, an increasing number of individuals and corporations were interested in entering this NFT business, including Nike and the NBA. For example, Nike launched NFTs in the digital form of its sneakers, and the NBA used NFTs to create its basketball player cards in a digital form that could later be collected like conventional basketball cards. Based on this trend, NFT is predicted to be implemented in various other applications, including any recorded information in a digital form (Noor, 2021). The future development of NFTs will depend on how these supporting ecosystems are created. The following are the main characteristics of NFTs: 1) Unique NFTs can be used to create unique digital assets. Each NFT's digital work will be different from the others, whose tokens are recorded on the blockchain network; 2) Traceability, ownership, source, and movement of each NFT are visible on the blockchain network, which can provide a transparent and traceable view of the NFT in real time; and 3) A authenticated NFTs cannot be forged or replicated. Each token is backed by a blockchain network that records an immutable digital ledger, allowing the token to be authenticated; 3) Adaptable: NFTs are highly adaptable to the digital ecosystem in the metaverse that supports NFT usage and application. NFT creators can buy and trade NFTs on various marketplace platforms (Sugiharto et al., 2022). Some NFT marketplace platforms that can sell artwork are visual artwork platforms, such as Opensea.io, Objkt.com, Foundation, Baliola.com, and Tokomall.

Blockchain technology is a revolution in the creative industries. Blockchain technology's presence will revolutionize the publishing industry by presenting monetization opportunities for new creative processes compared to conventional publishing methods (Ryan et al., 2021). Other papers have outlined

the process of how NFTs work and their relation to the archival world. The NFTs phenomenon is still new in Indonesia and has created artistic expression for economic opportunities. However, no less complicated are the challenges of whether these NFTs are just a momentary trend or create a “new space” that has economic potential (Noor, 2021).

Another study stated that the presence of NFTs is a new opportunity and was enthusiastically welcomed by the stakeholders in the creative industry for two reasons. First, digital objects such as images and music are increasingly copyable and have ownership value. Second, digital objects can be monetized effectively. As a result, the phenomenon of “riding the wave” by NFT creators will emerge (Chalmers et al., 2022). For example, some time ago, Indonesian people were shocked by the phenomenon of “Ghozali Every Day,” which adorned various reports on social media and television. A young man named Ghozali became a billionaire thanks to his collection of selfies sold as non-fungible token (NFT) digital assets. The NFT collection, “Ghozali Every Day,” is crowded with digital asset collectors. Currently, Ghozali’s NFT collection records 933 selfies. Initially, this NFT was priced at 0.001 ETH, or approximately 45.000 rupiahs. However, the highest selling price of one of its NFTs, Ghozali_Ghozalu #311, is 11 ETH, or approximately 47 billion rupiahs (CNBC Indonesia, January 14, 2022). Based on these results, the NFT world currently appears in the spotlight.

Not only the “Ghozali Every Day” phenomenon, but the Governor of West Java, Ridwan Kamil, also enlivened this NFT phenomenon by selling a painting entitled “Pandemic Self Portrait” for IDR 45.9 million via the Marketplace Open Sea. West Java Governor Ridwan Kamil also conducted a similar “experiment” by selling Braga Street paintings on the NFT platform exchange and selling them for IDR 4.2 million or with Ethereum crypto assets and 0.09 eth (CNN Indonesia, January 16, 2022). These two phenomena prove that the presence of NFTs is a new passion for Indonesian visual artists. In this context, recent technology platforms such as NFTs present new economic, social, and cultural opportunities.

According to a technology expert from Airlangga University, Yutika Amelia Effendi, in addition to technological infrastructure problems and intellectual property or copyright literacy, the significant thing amid various disruptions and the novelty of this expression is that it must have a level of digital literacy (Kompas.com, January 19, 2022). Furthermore, according to observers of the digital economy, it can be further developed to encourage the development of the metaverse, which requires a link between infrastructure, policies, and a society that is more literate in digital activities. The public is expected to practice technology and be ready to adopt metaverse technology (Bisnis.com, January 18, 2022).

NFT digital works have economic opportunities and potential in the creative industries because of their transparent sales systems through blockchain and smart contracts. Trends in NFT that are widely collected and liked are visual artwork in the form of digital illustrations and gifts in the form of 2D or 3D animations. NFTs are undoubtedly excellent opportunities for visual artists. Unfortunately, many do not know the existence of NFTs or understand what NFTs are, especially artists and designers in Bali (Torbeni et al., 2022). NFTs can be a business opportunity if artists have technical skills such as understanding the art process, the marketplace’s target consumer, and turning digital content into NFT content (Sari, 2022). Another study mentioned the benefits of technology and how to empower NFTs as part of the expression of individual creativity to achieve new business models in content creation. Therefore, if the NFT community plays a significant role in encouraging people to learn about and collaborate regarding NFTs, it is essential to create collaboration and mutual support among NFT creators (Sharma et al., 2022). In recent years, digital creators, artists, and designers have displayed and marketed their works on various digital platforms, such as Open Sea and Hicetnunc. The phenomenon then provides a number of new relationships between digital technologies (blockchain, metaverse, NFT, Twitter, Twitter Space, Discord) and human actors (artists, digital artists, designers) who form new virtual communities via various mechanisms and interaction patterns.

There hasn’t been a lot of research done on the phenomenon of NFTs, specifically their relationship to virtual communities. The studies mentioned above discuss many NFTs only in terms of economic and business potential (Chohan & Paschen, 2021; Sari, 2022; Torbeni et al., 2022; Wilson et al., 2022); NFT

as an archiving medium (Noor, 2021); or from the regulatory side (Sugiharto et al., 2022). Given this background, the role of the virtual community is crucial in understanding the NFT phenomenon. NFT creators engage in many interactions to discuss and find networks, educational activities, and markets on social media. Understanding this virtual community is essential because it is an equally important part of the NFT ecosystem.

Moreover, the NFT ecosystem is formed by a collection of members from a community-based virtual world. This research discusses forming a virtual NFT community from the perspective of actor-network theory. It seeks to examine various relationships and translations among human and non-human actors.

Literature Review

Definition of “Virtual Community”

A virtual community is a collection of people who are formed and connected through the interaction of internet network services. The model of life in virtual communities is no different from that of “real-life communities,” such as building social interactions and group life, social stratification, culture, social institutions, power, authority, and leadership, crime systems, and social control (Nurudin, 2019). Virtual communities are created because of several things, including shared interests, perspectives, and interests in an object (Sugiharto et al., 2022). The definition of a “virtual community” focuses on the activities and interactions that community members perform in the virtual world.

Other definitions state that a virtual community is built through social aggregation in a network that involves public discussion, human feelings, and personal relationships in cyberspace. According to this definition, virtual communities are not much different from real communities, where community members can share their feelings, emotions, and approaches personally. Except that the difference is, of course, that virtual communities are built on an Internet network (Sugiharto et al., 2022). A virtual community thrives as technology evolves, changing how people interact, create knowledge, and organize work. a pattern of interaction among the members of this virtual community through the same interest in a virtual realm.

Patterns of interaction in a virtual community are mediated by technologies that generate rules and norms within a specific range. There are several types of virtual communities, including a) communities of interest, a virtual community consisting of a collection of individuals who joined because they share the same interests; b) virtual learning communities, a virtual community focused on academic topics; and c) virtual communities of practice, a virtual community that aims to discuss topics related to professional work and the scope of one area of knowledge (González-Anta et al., 2021). Virtual worlds can be built with the following objectives: 1) social: a world that focuses on building community; 2) games: a world created primarily and most of all serving online games; 3) entertainment: a world that consistently presents music, videos, and movies; and 4) business: a specific world created for business purposes, including for buying and selling purposes or for training purposes (Zagalo et al., 2012).

Other studies have stated that the role of virtual communities is significant for learning from each other, supporting each other, promoting professional learning, building knowledge management, and sharing information. The formation of a virtual community is influenced by several factors, including the technology infrastructure, the participation, trust, and privacy of members, and the technical capabilities of community members. According to this study, there are several challenges related to virtual communities, including the existence of a two-way community that promotes active participation and collaboration. Second, the presence of virtual communities creates a safe environment. Third, virtual communities present opportunities to interact without time or geographical restrictions (McLoughlin et al., 2018).

Another study also stated that a “virtual community” is a collection of people who interact with each other on a technology platform and members of that community share the same interests, problems, and activities. This technology platform must support interactions between virtual community members to create good relationships and grow mutual trust among community members. According to this study, one of the success factors in building good relationships in a virtual community is related to data

security issues. This study shows growing mutual trust among virtual community members if they build on commitments related to data privacy (Leimeister et al., 2004).

Virtual communities serve as a means for individuals to learn and share knowledge. Motivation and incentive mechanisms play a role in knowledge sharing within a virtual community. This study aims to understand the various motivations, incentive mechanisms, and satisfaction factors that contribute to the success of knowledge sharing between members of a virtual community. According to this study, a virtual community is an informal entity without a formal agreement that shares the same interests and practices. The difficulty in developing a virtual community is encouraging members to share their knowledge with others. According to this study, an incentive mechanism is significant in motivating virtual community actors to share knowledge and information. As a result, these incentive mechanisms play a significant role in the agreement between virtual community members in sharing knowledge and information. The motivation here must be strengthened by the incentive mechanisms obtained, especially between members of the virtual community, to gain knowledge (Chiu et al., 2006).

According to this study, a virtual community is a series of people who use computers to support virtual spaces to communicate and interact with one another to share goals, such as fun, knowledge sharing, and commercials. One of the issues the virtual community raises is its low attachment to the community, which makes community members reluctant to participate further. Three factors encourage participation in virtual communities: utilitarian, hedonic, and social. In the utilitarian aspect, community members are seen as utilizing an information system where members can share knowledge, solve problems, and help each other through knowledge exchange in a virtual community. Second, on the hedonistic aspect, members of the virtual community share fun activities with each other. The three social aspects highlight building mutual relationships by sharing goals and feelings of sharing among community members in a virtual network. One of the motivations for involvement in a virtual community is the need for information. According to this study, technology-mediated sharing spaces explain that technological intermediaries support the presence of interpersonal communication. A virtual community can be seen in sociotechnical systems that contain both technical and social components. This study discusses the usability-sociability framework, such as sharing knowledge and fun activities. These factors significantly influence the success of a virtual community. According to this research on usability, a virtual community system with aspects of good sociability can be seen in the ease of navigation and finding the desired information, how information is presented, and the ease of interaction. The usability elements include consistency, control, predictability, navigation, access, and information design (Lu et al., 2011).

The studies above explain the formation of virtual communities because they are seen from psychological aspects (similarity of interests, sharing activities, comfort between members, pleasure, and incentives/benefits) or because of technological mediation (virtual and internet). However, they did not discuss how the process between these two aspects was sociotechnical. The novelty that I want to show in this paper is how virtual communities are formed through a series of conception-adoption processes involving the roles of human actors and non-human actors.

Method

The research method used in this study was qualitative, with a case study approach. The cases that will be studied are those of NFT artists from Bandung, Indonesia. Case studies focus on single or multiple cases and report in-depth studies involving multiple sources of information (Creswell 2015). At the start of the study, the problem was only roughly determined, concrete cases were observed, and the underlying features were abstracted. A hypothetical explanation of the phenomenon is then made through the identification of the case in a rough picture, formulation, and determination of whether the facts correspond to the explanation (Audifax, 2008). Data collection techniques included virtual observations, interviews, and literature studies. In this study, virtual observations were made through Twitter and Twitter Spaces.

Meanwhile, interviews are required to gather data and identify human and non-human actor relationships between NFT artists and various digital media platforms. Interviews were conducted with NFT artists Mochamad “DeathlessRamz” Ramdhan and Mufti “Amenkcoy” Priyanka. Other interview data was obtained through a group discussion of NFT communities at the “Community Talks” event on April 24, 2022. Qualitatively, this process will explore the data needed in the stages of how the NFT virtual community is formed through actor-network theory.

Result and Discussion

From the perspective of actor-network theory, virtual communities are formed through a series of relationships between humans and non-human actors (Yuliar, 2009). Community research through the actor-network theory approach has existed before, such as those between research on startup communities that discusses inter-factor relationships such as technical artifacts (community events and spaces/places) and human actors (community administrators and co-working managers) (Agirachman & Ekomadyo, 2017). Another study focused on waste community management, which was determined by the strength of the relationship between the community and the place created (Achsani & Ekomadyo, 2018). From these two studies, it can be concluded that technical artifacts and non-human actors play a significant role in forming a community.

Conception Phase

The conception phase begins with the problematization of a particular practice situation. It boils down to a specific concept or technical configuration. In this conception phase, problems arise (problematization stage) and actors’ interest (interest stage) in NFTs. This stage begins with several problems faced by people interested in finding information about NFTs. As a new concept, NFTs have attracted considerable attention, especially from visual artists and digital creator communities.

Informant 1: Mochamad “DeathlessRamz” Ramdhan

“I have started to follow the latest information about NFTs, around the end of 2019. I started my preliminary research. However, at that time, there was not much information available. I look for information in parallel. First, I looked for NFT information via Twitter and Clubhouse. Especially in the Clubhouse, many overseas people are already discussing these NFTs” (Interview dated April 12, 2022).

Informant 2: Mufti “Amenkcoy” Priyanka

“Yes, one of my friends named Muhammad Akbar at that time was just starting to know NFT because he was a member of the Dago Empire community who had previously understood NFT. At that time, Akbar was sure that this NFT was suitable for me and recommended joining an online workshop. Thus, the method is hands-on practice, online while being guided to boarding” (Interview dated June 8, 2022).

At the problematization stage, various personal motives that people experience about NFTs appear, such as economic motives (marketing work and seeking profit), social motives (seeking education and seeking networks), and psychological motives (seeking existence and having a desire to work). However, from the results of the interview above, someone’s desire to enter the world of NFTs is not only filled with personal motives that are psychological but also with relationships with other actors in the NFT community, such as human actors or non-human actors.

Mochamad “DeathlessRamz” Ramdhan explained that he was curious about NFTs from other creators abroad. He diligently searched for information about NFTs on Twitter and the Clubhouse before joining an NFT community called the Dago Empire. The initial information received about NFTs from

overseas people in the Clubhouse made him even more interested in looking deeper into information about NFTs. Meanwhile, Mufti “Amenkcoy” Priyanka became interested in NFTs because of the invitation of a friend who had earlier understood NFTs and invited him to “On-Boarding”. In the NFTs ecosystem, “on boarding” is a term that referred to educating ordinary people about NFTs and inviting them to be involved in marketing their work on NFTs. The interaction continued through online workshops.

At this stage, people have begun to take an interest in NFTs (the interest stage). They seek further information about NFTs from various digital platforms, particularly Twitter, Twitter Spaces, Discord, and clubhouses. People interested in NFTs will then search for various NFT discussions or forums. The actors also started engaging with other members of the NFT community. The NFT virtual community interacts more with Twitter and Discord. Technological capabilities are decisive at this stage. For example, Twitter can more easily interact and share work links than other social media platforms such as Instagram or Facebook. According to Mohammad “DeathlessRamz” Ramdhan, Twitter was selected because it makes it easy for users to share links and previews of works that can be accessed directly. Twitter’s ease of interaction makes it convenient for users to build interactions. There are two features that the virtual NFT community uses to interact on Twitter: Twitter Spaces and retweets. People can create discussions and build relationships in Twitter Spaces. Many NFT creators take advantage of Twitter Spaces to hold regular discussions about NFTs, such as creating an account and wallet, choosing an NFT e-commerce platform, and marketing their work. Some NFT creators routinely create discussion activities on Twitter to share information and education with the public, especially artists and designers who need information related to NFTs. Gradually, people will become interested in marketing their work in the NFT marketplace.

The retweet feature facilitates interactions between community actors because it makes it easy for people to build interactions and networks. People have already begun to be interested in starting interactions, such as greeting each other on Twitter or retweeting the work of other members of the NFT virtual community. In addition to Twitter, in the conception phase, information and education related to NFTs are widely held in Discord. Discord was chosen because of the ease of creating various topics on one channel. In addition, Discord can also be varied to create discussion facilities based on their interests and goals. NFT community creators use many Discord channels because they feel they are more effective than other chat application media. Discord activities are commonly used in information exchange and education. Discord can facilitate the discussion of various aspects of NFTs. The presence of social media, such as Twitter and Discord, makes it easy for people to obtain information and education related to NFTs.

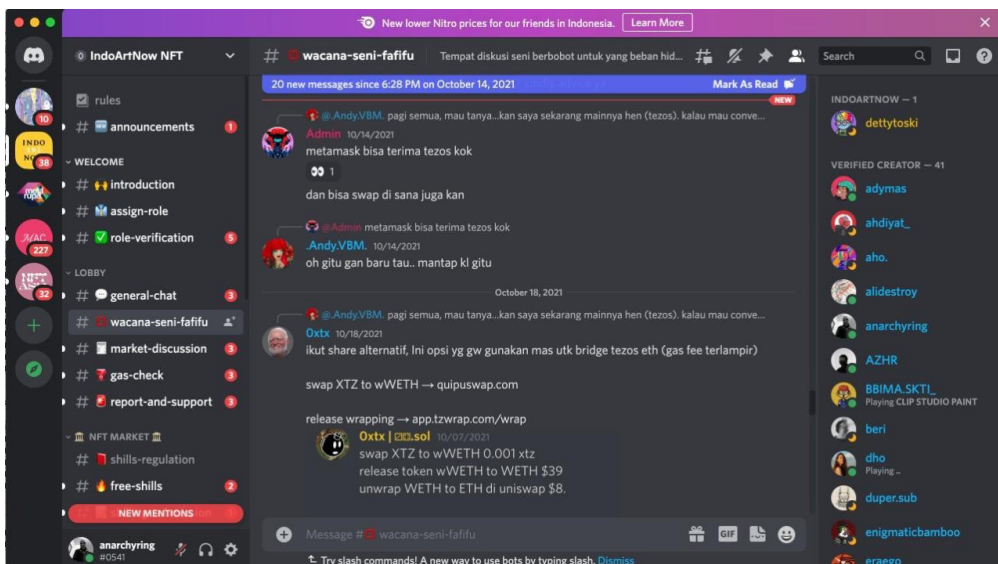


Figure 1 Community Interaction on Discord’s Platform
(Source: Author’s document)

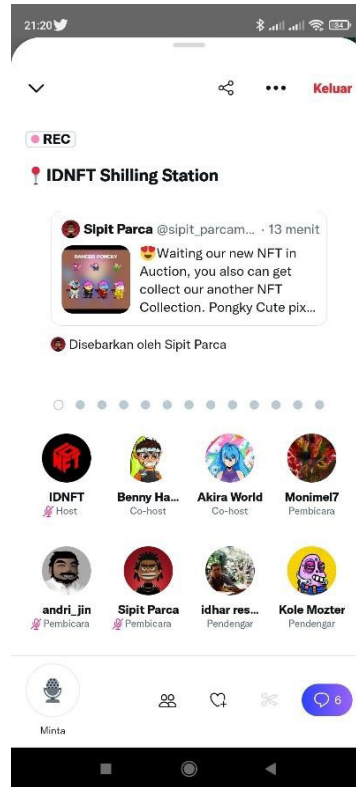


Figure 2 Community interaction in Twitter Spaces
(Source: Personal Documentation)

Adoption Phase

In the adoption phase, various social and technical sources are deployed, social actors and technical objects are involved, and a sociotechnical configuration forms technology adoption. In this adoption phase, there has been enrolment and mobilization of people related to NFTs. Once people start getting interested in and digging up information about NFTs, they will start getting involved in getting the NFT virtual community to build interactions or market their work.

Informant 1: Mochamad “DeathlessRamz” Ramdhan

“Because in NFT, we have to increase interaction in the community and especially through social media. We must be diligent about social media. Through the community, networks can be built to collaborate and create projects. Through the community, we can conduct research together, such as what trends are crowded, what works are widely collected, and what platforms are suitable for our work. NFT platforms have the characteristics of (interview dated April 12, 2022).

Informant 2: Mufti “Amenkcoy” Priyanka

“Exploration of the medium is what the presentation during my work was a conventional presentation, the first one was curious, the second I became met with interesting new networks and there were some approaches to acquaintances in the forum, for example, there was space, there was Discord so it was also a kind of small groups that did overshadow their needs at the time of practice in the field for example like earlier when in the arena of collectors or fellow creators, here is the moment between Discord or space, what is the critical question?” (Interview dated June 8, 2022).

The interview results show that people have been more intensely involved in interacting with fellow NFT community creators. They leverage various digital media, such as Twitter, Twitter Spaces, Discord, and Clubhouse, to build their interactions with each other. The purpose of the interaction was to build a network, collaborate, provide support, and market artwork. The interactions carried out by the NFT community include discussions on Twitter spaces, retweeting each other's work, and commenting on each other on Twitter. Mufti "Amenkcoy" Priyanka regularly held discussions on Twitter Spaces around his work process. He also regularly retweeted works by other members of the NFT community. According to Amenkcoy, building interactions in the NFT community is one of the keys to self-branding, marketing work, and supporting fellow NFT creators. According to Muhammad "DeathlessRamz" Ramdhan, the roles of Twitter, Spaces, Discord, and Clubhouse have become a means of media to build networks and collaborations between fellow members of the NFT community. For example, the Dago Dao community allows its members to collaborate, as in the work of the Soilets. In Soilets' work, NFT creators can collaborate with visual, multimedia, or music artists to produce work together.

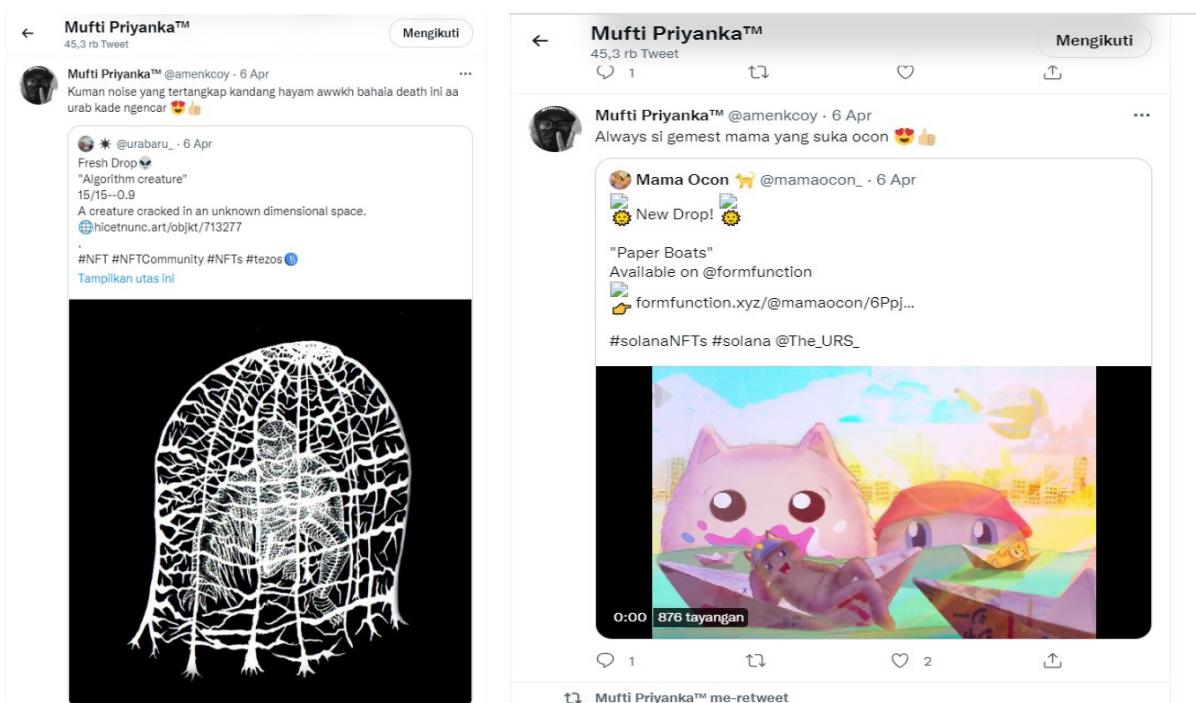


Figure 3 Retweet activities carried out by Amenkcoy as part of NFT community interactions
(Source: Personal Documentation)

The NFT community system is “decentralized,” in which the NFT community acts as a creator and collector. The more intense the interaction, the more opportunities people must market their work. The NFT ecosystem is community-based and includes prosumers (creators and collectors) in marketing efforts. They cannot be separated from their interactions with NFT creators. Twitter is also a means of marketing the work of NFT actors, like discussing work in Twitter spaces or using retweets to touch on each other's work.

The NFT virtual community also collaborates to market their artwork. NFT is known as “Shiling,” an interaction process in which NFT creators promote their artwork on Twitter. NFT creators can support each other by retweeting the features of the work to be promoted. For example, NFT creators interact more on Twitter because it is straightforward, fast to promote, and easier to access than Instagram and Facebook. Twitter is directly connected to wallets, one of the means used in e-commerce transactions. Activities such as discussions in Twitter spaces and Discord became a means of getting to know each other and building networks. Thus, the marketing process in the NFT community is different from that in

conventional galleries. In the NFT community, NFT creators must interact intensively and support fellow members of the NFT virtual community so that their work can be widely known. Thus, the role of solid relationships between human actors (NFT communities) and non-human actors (Twitter, Twitter spaces, and Discord) influences the sustainability of NFT virtual communities.

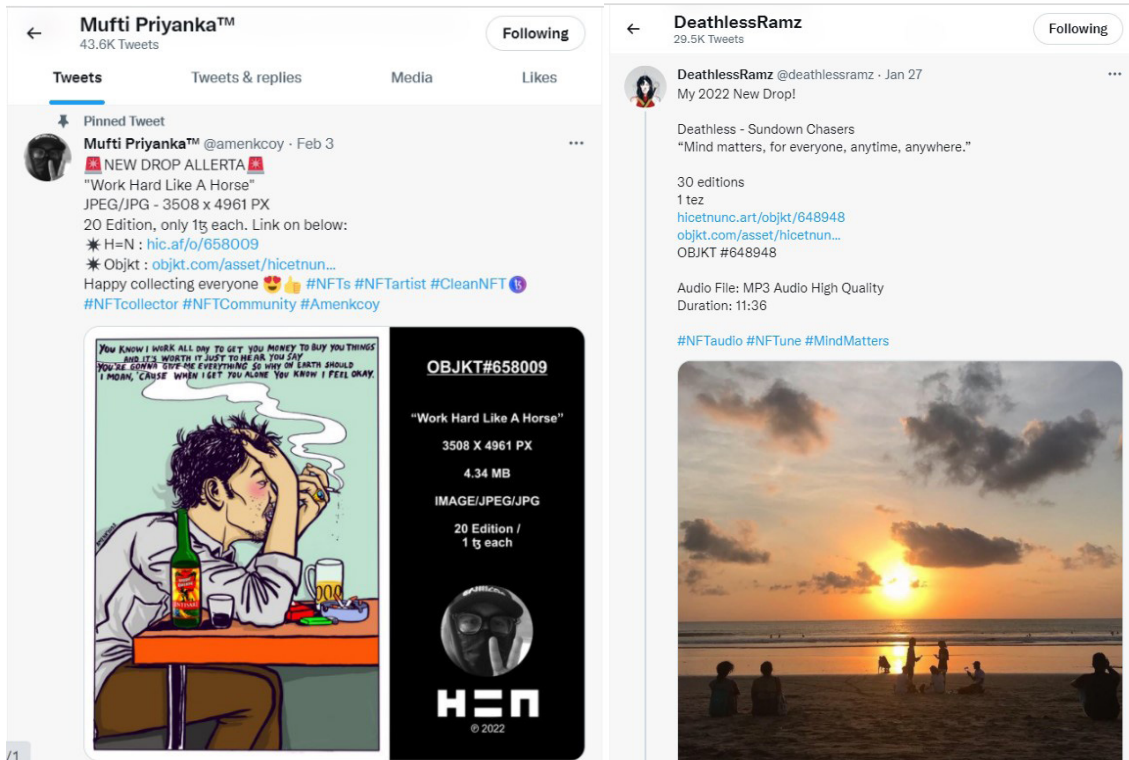


Figure 4 The NFTs marketing process through Twitter
(Source: Personal Documentation)

A virtual community cannot be separated from the building of relationships between human and non-human actors. The activities that exist in a virtual NFT community involve an effort to build relationships in a solid NFT virtual community. When someone has started to get involved in an NFT community, it is necessary to build intense interactions ranging from regularly holding discussions on Twitter Spaces, conducting shilling activities, collaborating between community members, inviting other ordinary people to participate on-board activities, and creating and marketing works on NFT e-commerce platforms. When this happens, actors are already fully involved in the NFT virtual community.

Virtual communities are not only seen as social beings mediated by computers or digital technology through various psychological motives, such as common interests, sharing activities, comfort between members, and mere pleasure. However, there is also the involvement of interconnected material artifacts. Thus, instead of seeing virtual communities, the actor-network theory emphasizes that a virtual community is seen as an act of performativity. This performativity emphasizes how an action occurs and seeks a “process of becoming.” The definition of social in actor-network theory emphasizes the assumption that the existence of a social entity is an existence that is essentially “performative.” The actors (human and non-human) provide evidence of the existence of social entities through their performance actions (Yuliar, 2009).

The shortcomings of this study are that it focuses only on Twitter as an artifact of the object being studied. The use of other digital media is also interesting to discuss. In addition, this research only looks at sociotechnical relations centered on the process of a performance action, even though research on digital culture can include a broader range of economic, social, and cultural impacts.

Table I Action Performativity

Phase	Translation Process	Action Description Performativity
Conception	Problematization	The actors began to show problematization that made them start to be interested in NFTs, such as economic motives (marketing works and seeking profit), social motives (seeking education and looking for networks), or psychological motives (seeking existence and desire to work)
	Interests	At this stage, the actors have already become interested in NFTs. They have begun looking for information from various digital platforms, especially Twitter, Twitter Spaces, Discord, and Clubhouse. The actors also started engaging with other members of the NFT community. The actors have also begun to be interested in on boarding NFTs.
Adoption	Enrolment	At this stage, there is already involvement and participation from the actors. As information and education grew, they began to leverage digital media (Twitter, Twitter Spaces, Discord, and Clubhouse) to interact with other members of the NFT community.
	Mobilization	At this stage, the actors have already begun to build interactions, build self-branding, and market NFT. Education and information allow actors to engage fully in the NFT virtual community. There have been intense interactions ranging from regularly holding discussions in Twitter Spaces to conducting activities, collaborating between community members, and creating and marketing works on NFT e-commerce platforms. Actors are already fully involved in the NFT virtual community.

(Source: Author’s analysis)

Conclusion

A virtual NFT community is created through a conception or process in which problems arise regarding NFTs. People become interested in NFTs and want more information about them. Meanwhile, artists and designers have begun to engage in and market their work on social media in the adoption process. These actions then form a virtual community. From the results of this analysis, it can be concluded that a virtual community cannot eliminate the role of non-human actors or artifact objects such as Twitter, Twitter spaces, and Discord, which are very important in maintaining the stability of NFT community relations. The formation of a virtual NFT community through various actions of the actors involved, such as human actors (designers, artists, or digital creators) or non-human actors (Twitter, Twitter Spaces, Discord, Clubhouse, NFT Marketplace, and Forums). The relationship becomes stable in a virtual community when several human and non-human actors have been established with the same commitment.

Various activities in the NFT virtual community, such as regularly holding discussions on Twitter spaces and Discord or doing activities through retweets, are significant efforts to stabilize community relationships. Commitment to the NFT virtual community decreased when one activity was lost. Stronger interactions are directly proportional to the relationship.

Through the performance actions of these actors, we can see that a virtual community is not just a matter of psychological aspects (interest and pleasure) or technological aspects (mediation by digital technology), but that we can see more clearly that the interactions that exist in this NFT virtual community are determined mainly by the relationship between human actors and non-human actors. The role of artifacts is as essential as that of social actors. Technological capabilities are significant because they make interactions easier for social actors. From these results, if we want to understand a virtual community, it would be nice if we also started to highlight the role of objects and artifacts that make up a virtual community. The weakness of this research is that it only limits research on the interaction between NFT creators and digital platforms. In addition, this research focuses only on the socioecological capabilities

of a virtual community and does not discuss the issue of values in digital culture related to economic, social, and cultural impacts.

Acknowledgement

PPM Telkom University funded this research. Thanks to the informants of this study, including Mochamad “DeathlessRamz” Ramdhan, Mufti “Amenkcoy” Priyanka, and the Dago Dao Community.

References

- Agirachman, F. A., & Ekomadyo, A. S. (2017). Analisis Teori Jaringan Aktor Pada Co-Working Space Dan Komunitas Startup Di Bandung. *Jurnal Koridor*, 8(2), 206–212. <https://doi.org/10.32734/koridor.v8i2.1348>
- Arifianto S. (2019). Fenomena Media Digital dan Perubahan Perilaku Masyarakat Penggunanya. In C. J. Arifianto S. (Ed.), *Media Digital dan Perubahan Budaya Komunikasi* (1st ed., p. 194). Aswaja Pressindo.
- Audifax. (2008). *Research: Sebuah Pengantar untuk “Mencari-Ulang” Metode Penelitian dalam Psikologi* (1st ed.). Penerbit Jalasutra.
- Bestari, N. P. (2022). *Viral Ghozali Everyday, Bagaimana Masa Depan NFT di RI?* <https://www.cnbcindonesia.com/Tech/20220114134931-37-307377/Viral-Ghozali-Everyday-Bagaimana-Masa-Depan-Nft-Di-Ri>. <https://www.cnbcindonesia.com/tech/20220114134931-37-307377/viral-ghozali-everyday-bagaimana-masa-depan-nft-di-ri>
- Bisnis.com, “Indonesia Belum Siap Metaverse, Pengamat: KTP Saja Masih Harus Fotokopi”, 18 January 2022. Link: <https://teknologi.bisnis.com/read/20220118/84/1490198/indonesia-belum-siap-metaverse-pengamat-ctp-saja-masih-harus-fotokopi> Accessed on 4 February 2022
- Chalmers, D., Fisch, C., Matthews, R., Quinn, W., & Recker, J. (2022). Beyond the bubble: Will NFTs and digital proof of ownership empower creative industry entrepreneurs? *Journal of Business Venturing Insights*, 17(December 2021), e00309. <https://doi.org/10.1016/j.jbvi.2022.e00309>
- Chiu, C. M., Hsu, M. H., & Wang, E. T. G. (2006). Understanding knowledge sharing in virtual communities: An integration of social capital and social cognitive theories. *Decision Support Systems*, 42(3), 1872–1888. <https://doi.org/10.1016/j.dss.2006.04.001>
- Chohan, R., & Paschen, J. (2021). What marketers need to know about non-fungible tokens (NFTs). *Business Horizons*. <https://doi.org/10.1016/j.bushor.2021.12.004>
- Creswell, J. (2015). *Penelitian Kualitatif dan Desain Riset: Memilih Di Antara Lima Pendekatan* (Saifuddin Zuhri Qudsy (ed.); 1st ed.). Pustaka Pelajar.
- CNBC Indonesia, “Viral Ghozali every day, Bagaimana Masa Depan NFT di RI?” January 14, 2022, Link: <https://www.cnbcindonesia.com/tech/20220114134931-37-307377/viral-ghozali-everyday-bagaimana-masa-depan-nft-di-ri> accessed on February 4, 2022
- CNBC Indonesia, “Metaverse Mau Berkembang di Indonesia? Ini Syaratnya. 16 December 2021 Link: <https://www.cnbcindonesia.com/tech/20211216151933-37-299842/metaverse-mau-berkembang-di-indonesia-ini-syaratnya> accessed on 4 February 2022
- CNN Indonesia, “NFT Lukisan Ridwan Kamil Laku Rp 45,9 Juta”, 16 January 2022. Link: <https://www.cnnindonesia.com/teknologi/20220116104948-185-747212/nft-lukisan-ridwan-kamil-laku-rp459-juta> accessed on 4 February 2022
- Ginting, A. S., & Sadono, S. (2022). *Ruang Pameran Alternatif Dalam Bentuk Platform Pasar Seni Non-Fungible Token*. 9(2), 1399–1415.
- González-Anta, B., Orengo, V., Zornoza, A., Peñarroja, V., & Martínez-Tur, V. (2021). Understanding the Sense of Community and Continuance Intention in Virtual Communities: The Role of Commitment and Type of Community. *Social Science Computer Review*, 39(3), 335–352. <https://doi.org/10.1177/0894439319859590>

- Kompas.com, “Pakar Unair: Butuh 3-5 Tahun untuk Menerapkan Metaverse di Indonesia, 19 January 2022. Link: <https://edukasi.kompas.com/read/2022/01/19/152755671/pakar-unair-butuh-3-5-tahun-untuk-menerapkan-metaverse-di-indonesia?page=all> accessed in 4 Februari 2022
- Koran Tempo “*Industri Musik, Pihak Ketiga, dan Fenomena Aset Digital*”, *Koran Tempo*, 15 Oktober 2021
- Leimeister, J. M., Sidiras, P., & Krmar, H. (2004). Success factors of virtual communities from the perspective of members and operators: An empirical study. *Proceedings of the Hawaii International Conference on System Sciences*, 37, 3015–3024. <https://doi.org/10.1109/hicss.2004.1265459>
- Lu, X., Phang, C. W., & Yu, J. (2011). Encouraging participation in virtual communities through usability and sociability development: An empirical investigation. *Data Base for Advances in Information Systems*, 42(3), 96–114. <https://doi.org/10.1145/2038056.2038062>
- McLoughlin, C., Patel, K. D., O’Callaghan, T., & Reeves, S. (2018). The use of virtual communities of practice to improve interprofessional collaboration and education: findings from an integrated review. *Journal of Interprofessional Care*, 32(2), 136–142. <https://doi.org/10.1080/13561820.2017.1377692>
- Noor, M. U. (2021). NFT (Non-Fungible Token): Masa Depan Arsip Digital? Atau Hanya Sekedar Bubble? *Pustakaloka: Jurnal Kajian Informasi Dan Perpustakaan*, 13(2).
- Nurudin. (2019). *Perkembangan Teknologi Komunikasi*. Penerbit Rajawali Press.
- Rizky Amalia Achsani, & Agus S. Ekomadyo. (2018). Penciptaan Tempat Dalam Pengelolaan Sampah Berbasis Komunitas. *Jurnal Koridor*, 9(1), 85–92. <https://doi.org/10.32734/koridor.v9i1.1313>
- Ryan, M. D., Macrossan, P., Wright, S., & Adams, M. (2021). Blockchain and publishing: towards a publisher-centred distributed ledger for the book publishing industry. *Creative Industries Journal*, 0(0), 1–20. <https://doi.org/10.1080/17510694.2021.1939541>
- Sari, D. P. (2022). Pemanfaatan NFT Sebagai Peluang Bisnis Pada Era Metaverse. *Jurnal Akrab Juara*, 7(1), 237–245. <https://dspace.uui.ac.id/handle/123456789/29069>
- Sharma, T., Zhou, Z., Huang, Y., & Wang, Y. (2022). “*It’s A Blessing and A Curse*”: *Unpacking Creators’ Practices with Non-Fungible Tokens (NFTs) and Their Communities*. 1(1), 1–25. <http://arxiv.org/abs/2201.13233>
- Sugiharto, A., Musa, M. Y., & Falahuddin, M. J. (2022). *NFT & Metaverse: Blockchain, Dunia Virtual, & Regulasi* (1st ed.). *Perkumpulan Kajian Hukum Terdesentralisasi Indonesian Legal Study For Crypto Asser And Blockchain*.
- Torbeni, W., Putu, N., Lestari, E. B., Komang, I., & Putra, A. M. (2022). Mengenal Nft Arts Sebagai Peluang Ekonomi Kreatif Di Era Digital. *Online) Senada*, 5, 342–357. <http://senada.idbbali.ac.id>
- Wilson, K. B., Karg, A., & Ghaderi, H. (2022). Prospecting non-fungible tokens in the digital economy: Stakeholders and ecosystem, risk, and opportunity. *Business Horizons*. <https://doi.org/10.1016/j.bushor.2021.10.007>
- Yuliar, S. (2009). *Tata Kelola Teknologi: Perspektif Jaringan Aktor* (1st ed.). Penerbit ITB.
- Zagalo, N., Morgado, L., & Boa-Ventura, A. (2012). *Virtual Worlds and Metaverse Platforms* (1st ed.). Information Science Reference.