The impact of technology development upon art essence intricacy on arts: The perspective of art practitioners in Malaysia

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ABSTRACT

This paper presents and discusses the relative issues of the development of modern technology that directly impact the creation of artwork. The artistic value has always been argued and discussed as the era changes occasionally. The artistic world has again learned the value of integrating and applying technology to artists' artworks. The technology enforcement, in alignment with the demands of the new generations, kept contextual and conceptual artworks secondary. This paper will elaborate on the relationship between technological applications and artworks' impact. As the digital era shifted rapidly, more advanced technological applications were valued more than conceptual value. Art appreciation has become more tangible rather than elaborate. Thus, it is important to simulate a conceptual framework to understand the phenomenon properly. Multiple understandings of the theory of the development of technological implications support the conceptual framework. This study conducted exploratory research by collecting primary data through a focus group interview with Fine Artists, Graphic Artists, and Hybrid Artists in an open session and discussing by elaborating on the topics mentioned. An underlying understanding of the conceptual framework has been achieved, and a new conceptual framework has been developed. This paper is limited to the technological implications of the value of artworks and the artist's experience. The advanced conceptual framework of the Art Intricacy Performance Model will define artwork to recognise the proper understanding of its value and direction.

Contribution/ Originality: This study is explanatory research that studies the art intricacy towards measuring the performance of artwork creations. The proposed conceptual framework will add value to indicate the value of an artwork in the digital era.

1. INTRODUCTION

The wave of digitalization covers all aspects of human lifestyle, from consumption to dispositions. Human integration of technology has changed their mindset and made them more dependent on it, and the value of handcraft has become alienated and devalued. This can be viewed in terms of art application, whereby the continuation of art development has also shifted its paradigm into a technological phenomenon. According to Jones,

Rice, Lam, Chandler, and Lee (2021) technological development in artworks is important to enhance the appreciation of an artwork. The accessibility of art appreciation tends to target a specific audience. Thus, technological advancement helps preserve the continuity of the general arts context. Concepts of art appreciation are measured subjectively, depending on the facts that the artist brought to the development. To appreciate art is to be able to comprehend it, judge it, and take pleasure in it. Acquiring an art appreciation necessitates studying not only the works themselves but also their historical and cultural backgrounds. Participants in art appreciation are encouraged to interact with works of art on intellectual, emotional, and aesthetic levels. It encourages spectators to apply their own experiences and viewpoints to the art, resulting in a more intense emotional reaction. The ability to think critically is honed when one examines works of art for more profound meaning and significance.

Technology advancements profoundly impact the artist or designer who creates an understanding of the artwork. Art and technology have always been inextricably connected. Given how quickly technology is developing, it is crucial to comprehend what this means for the creative industry. This study paper aims to examine the connection between contemporary technology and the creation of artistic works. The artistic merit of incorporating technology into artwork has recently been debated. While some claim that technology devalues a piece of art's intellectual significance, others think it enriches the creative experience. The influence of technological applications on the creation of art and the shift in art appreciation from interpretative to tangible will be discussed in this presentation. Furthermore, this study will investigate the role of technology in promoting artworks and how it has influenced the experience of art practitioners. This study tries to give a thorough understanding of the link between technology and art by proposing a conceptual framework that integrates diverse understandings of theoretical development.

2. LITERATURE REVIEW

New media and artistic styles have emerged as a result of technological advancements. This has significantly altered how artworks are viewed and valued, as well as their artistic merit (Simanowski, 2011). For instance, artists can now produce immersive and interactive works of art that were previously impossible because of digital media and software. This has caused the emphasis to shift from conventional tools and methods to digital ones (Mäyrä, 2008). Technology's effect on the creative merit of works of art is a complicated and varied topic. On the one hand, technology has given artists new ways to produce unique and captivating art pieces. However, it also calls into question the validity and originality of works created using digital processes (Mogno & Nuccio, 2023). While some contend that technology devalues aesthetic worth, others contend it enriches it. Notwithstanding these worries, evidence suggests that technology use has enhanced the creative value of works of art. Digital technology, for instance, has enabled artists to explore novel forms of expression and reach a larger audience (Simanowski, 2011). Moreover, it has enabled them to produce more immersive and interactive works, which has improved the audience's overall experience (Mäyrä, 2008). In addition to these advantages, technology has changed how people view and value art. Art appreciation has become more apparent and available to a larger audience as digital technology has become more widespread (Mogno & Nuccio, 2023). Due to this, attention has shifted from the artwork's conceptual worth to its technical and aesthetic merits. Technology's influence on the value of art is not a recent development. In truth, numerous technological advancements throughout art history have significantly impacted how works of art are produced and viewed (Liu, 2021). For instance, the invention of oil paints during the Renaissance enabled painters to produce more realistic and intricate works of art. The development of photography in the 19th century also put old ideas of realism and representation to the test. Nonetheless, the extent and size of technology's influence on aesthetic worth in the digital age are unmatched. Art creation, consumption, and transmission change as media and digital technologies develop. Conventional ideas of art have been re-examined consequently, and the emphasis now lies more on the technology used to create the artwork than on the artwork itself (Bañez, 2023).

Technology and artistic worth have a complicated and nuanced relationship. Technology has given artists new opportunities to produce inventive and exciting works of art, but it has also led to concerns about the authenticity and originality of artwork produced with the help of digital tools (Wang & Wang, 2021). The growth of amateur and mass-produced artworks due to the democratisation of technology has further complicated the question of artistic worth. It is critical to take the practitioner's viewpoint into account to fully comprehend how technology affects aesthetic worth. Artists, curators, and other art professionals significantly affect the conversation around art and technology, and their viewpoints and experiences may be very instructive (Simanowski, 2011). Looking at it from the practitioner's standpoint can help us better comprehend how technology changes the art industry.
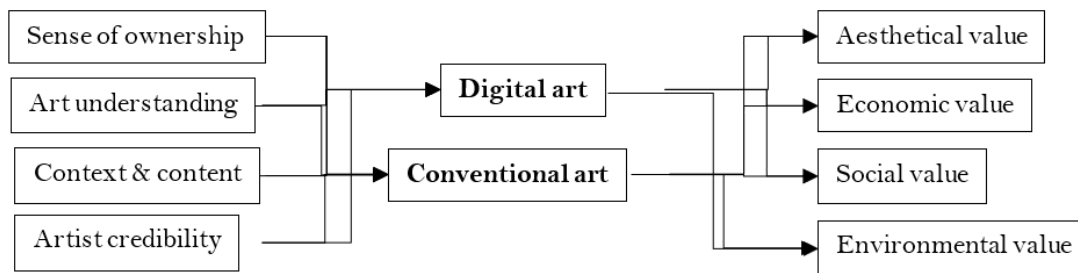

Figure 1. The proposed conceptual framework for art essence intricacy performance model.

Figure 1 illustrates the proposed conceptual framework for the Art Essence Intricacy Performance model as suggested in this study. The study suggested that art has different essences based on its sense of ownership, art understanding, context and content, and the artist's credibility. The development of different essences of art led to different performance values differentiated between aesthetic value, economic value, social value, and environmental value.

2.1. Sense of Ownership

In conventional artwork, possession refers to actual possession, authenticity, and originality. Even though generation is often linked to virtual artwork, some researchers have looked into how it may affect conventional art forms' feelings of possession. Painters and sculptors, for example, may feel a deep connection to the physical objects they create. The uniqueness and individuality conveyed by these physical works of art can be very meaningful to their creators. In terms of the art gallery, they tend to prioritise displaying physical works of art, the ownership of which is inextricably linked to the original. The rarity, historical significance, and skill of the artist behind the work may all be factors in their decision. Galleries that focus on digital art may define ownership in terms of one-of-a-kind copies or strictly limited editions. To ensure the authenticity of digital artworks, they may use blockchain technology or collaborate with artists to create limited editions. Liang and Chi (2021) and McConaghy, McMullen, Parry, McConaghy, and Holtzman (2017) for instance, checked out how blockchain technology may improve the provenance and traceability of both conventional and digital artistic endeavours, improving the sense of ownership for traders and collectors. In digital art, the sense of ownership is deliberately handled by a set of agreements proposed by the system with certain values. Nonetheless, the owner cannot control distribution completely as no regulations prevent the duplication of the artwork (Chalmers, Fisch, Matthews, Quinn, & Recker, 2022). The ownership of digital arts has been questioned, as any factor cannot determine its sources. The sense of the character of each work is not visible to the viewer, as the development of the outcome does not rely on the creator's techniques and skill. A buyer's emotional investment in an artwork varies with the individual's tastes, goals, and knowledge of the piece they have acquired. The concept of owning a one-of-a-kind digital file, typically in the form of non-fungible tokens (NFTs), may appeal to buyers of digital art. They may be interested in the uniqueness of the work, its provenance, and the possibility of selling or trading it online (Li, Ma, & Wu, 2023). Some artists did not believe they had the authority to claim ownership of their work. Nonetheless, digital art is a type of art in which the

author uses technological tools that they may see as unique and worthwhile. They may feel a sense of pride in their work because of their innovative methods, superior abilities, and ground-breaking ideas (Gillespie, 2011). Some rules and specifications of ownership have been determined for paintings or artwork. It is worth noting that as artistic practises and technological developments continue to shape the art world, so can the concept of ownership. How one's own experiences and culture can influence one's view of ownership in the digital and conventional arts realms (Acomi et al., 2023).

2.2. Art Understanding

Understanding art entails decoding, analysing, and appreciating artworks. Conventional arts such as painting, sculpture, and ceramics require an in-depth knowledge of conventional methods, materials, and craftsmanship on the part of the artist. They might place a premium on using real tools and materials to create something tangible. The artists produce objects that can be touched and placed in a specific location. Composition, size, texture, and depth are just some of the things they consider. For them, the best way to learn about art is to get their hands dirty and experience the medium firsthand. Distribution and reproduction in the classical arts, such as paintings and sculptures, are either one-of-a-kind or created in small runs. Each artwork has its unique worth, which artists are free to highlight. The tangible nature of conventional artwork tends to bolster its claims of genuineness and rarity. Conventional artworks typically encourage audience participation through visual observation and contemplation. Conventional art is best experienced in person, where it can be directly interacted with, its textures explored, and multiple senses engaged. The medium itself can shape the viewer's experience and interpretation of the work of art. Although technology is often related to virtual art, it also influences how conventional artwork is seen. A study by Gong (2021) investigated how advanced technologies like virtual and augmented reality could provide immersive and interactive stories that enhance visitors' comprehension and engagement. Digital artists need to spend time understanding this system so that they will have strong potential in the digital market, yet they will also powerlessly position themselves when the market is growing rapidly. Digital artists are often well-versed in computer systems, software, and techniques. They may see art as a chance to experiment with interactive elements, algorithmic layouts, and hybrid forms of expression. Their output is exclusively digital and is experienced primarily through screens or projections. Resolution, pixel density, colour calibration, and interactivity are all factors that could be important in comprehending and appreciating digital artwork. The intangibility of digital art creates new opportunities and challenges for creators and viewers. Interactive experiences, multimedia presentations, and audience participation are all possible with digital art. Touchscreens, VR headsets, AR glasses, and interactive installations are ways viewers can interact with digital artworks. Artists who use digital tools may experiment with the viewer-artwork dynamic by including interactive, participatory, and immersive elements in their works (Chalmers et al., 2022).

2.3. Context & Content

While content and context are universal to all art forms, their manifestations vary depending on whether the work is digital or conventional. The term "content" is used to describe the subject matter or visual elements of a work of conventional art. It encompasses everything from realistic depictions of people and animals to more abstract depictions of landscapes and geometric forms created in clay or paint. Content in digital art refers to the same subject matter or visual elements as in conventional art, but the work is produced through digital software and hardware. Digital art includes computer-generated imagery (CGI), interactive installations, and multimedia works. Digital artworks can range from static images and animations to code-based interactive experiences. When discussing conventional forms of artistic expression, "context" refers to the historical, cultural, and social conditions that existed when the work was created. This encompasses the artist's upbringing, the time's aesthetic trends, and the time's political and social climate. It facilitates understanding the artwork in its historical and cultural setting

by providing context. Like conventional art, the context of digital works can have both familiar and novel elements. The technological context is included in digital art's historical and cultural factors. Most digital artworks either interact with current technological developments, test out novel forms of human-computer communication, or consider the societal effects of digital culture. While both digital and conventional art are judged on their merits, using technology, and incorporating digital elements opens up new possibilities. The medium and its connection to the digital age can affect how content and context are expressed and understood in digital artworks. Conventional artworks must have context and substance, encompassing the piece's historical, cultural, and thematic additives. Technology may have many outcomes for the environment and substance of conventional artwork. Samdanis (2016) for example, studied how visitors' comprehension and appreciation of conventional artworks are enriched by the supply of historical and contextual records made viable via digital systems and online records. Developing the content and context of digital art platforms is based on the proposals and shares of their patients. The context is also based on the eight human dimensions and artistic channels (Tagliaferri et al., 2022). As the message in developing the content may prove insufficient, its perceived ability to motivate in developing the information may prove insufficient (Li et al., 2023).
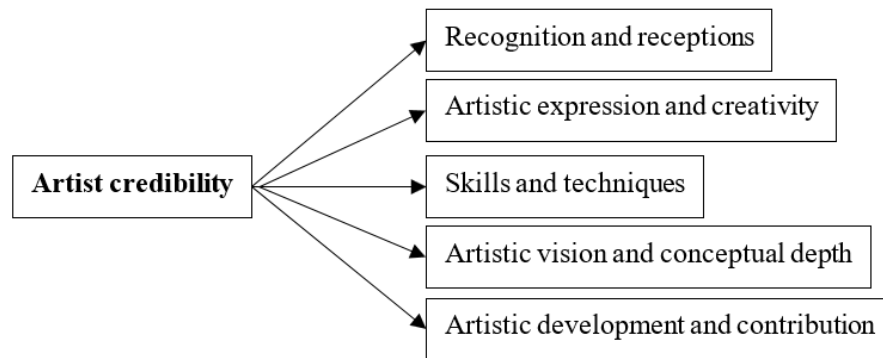

Figure 2. The artist credibility aspects.

2.4. Artist Credibility

Conventional artists' popularity, attractiveness, and authority are called an artist's credibility. Figure 2 illustrates the factors that are contributed from artist credibility to perform or create an artwork. Technology has opened new channels for artists to increase their recognition and visibility. Shahbaznezhad, Dolan, and Rashidirad (2021) checked out how social media websites and online portfolios affected the development of artist groups and the acknowledgement of artists, showing how technology shapes artists' credibility. The focus on digital artwork is far from the perspective of conventional artwork, which focuses on the type of media, medium, and tools. The sense of technique and creativity in developing the work is inconsistent with conventional work. Thus, the credibility of art has been questioned as it has not proven to be sufficient in its development in the sense of individuality (Li et al., 2023; Manchón, 2021). There is no fundamental difference between the credibility of an artist creating digital art and traditional art. Skilled and accomplished artists can create either art form, or there are similar considerations for evaluating an artist's credibility in either medium. Several crucial factors include an artist's credibility, often tied to their skill level, technical proficiency, and mastery of their chosen medium, which is true of both digital and traditional art. This includes composition, colour use, shape, texture, and the ability to convey the artist's intended message. The originality and depth of an artist's conceptual understanding also contribute to their credibility. This refers to the artist's capacity to articulate concepts, feelings, or stories through their work while providing fresh viewpoints or interpretations. Digital and traditional art place a premium on free expression and original thought. Artists willing to try new things, break conventions, and test the limits of their medium are often rewarded for their efforts. Growth and Contribution to the Arts: An artist's reputation rises when they demonstrate steady improvement over time and make notable contributions to their chosen artistic field. This can be done in a variety

of ways, such as creating foundational works of art, exhibiting them in key exhibits, receiving renowned prizes, or making substantial contributions to art-related debates and conversations. Credibility can be established through the artist's work being recognised and well-received by their contemporaries, critics, galleries, museums, and the general public. An artist's reputation can be bolstered by favourable reviews from critics, showings at prestigious institutions, and sales to notable collectors. It is important to note that digital art has become increasingly accepted in the art world over time. A growing number of well-known artists work exclusively in digital mediums. Artists working in digital mediums are gaining respect and legitimacy as the field matures and is taken up by museums and private collectors. No matter whether they create digital or traditional works, an artist's credibility is established through the sum of their artistic abilities, vision, creativity, contributions, and recognition (Fang & Zhu, 2023).

2.5. Aesthetic Value

An artwork's visual enchantment, trendy beauty, and creative excellence are all considered part of its aesthetic worth. The effect of generation on the cultural value of works of art has been investigated in several advanced studies. Samah, Putih, and Hussin (2016) for instance, made the case that enhancements in digital tools and software programmes have enabled artists to supply aesthetically marvellous and immersive virtual works of art that push the boundaries of conventional aesthetics. Nevertheless, conventional art often uses techniques and materials like paint, clay, and stone and even tries to innovatively create new materials for art creation. The physicality of these materials enhances the artwork by giving it a sense of depth, texture, and material quality. Digital arts, on the other hand, are made with the help of computers, smartphones, and other digital gadgets. The absence of a physical medium in digital art can present unique aesthetic qualities, such as luminosity, interactivity, and the ability to create immersive experiences. Conventional arts, particularly one-of-a-kind works like paintings or sculptures, exude an air of exclusivity and uniqueness. Every piece of art is unique because it was made specifically for the client. The one-of-a-kind vibe increases its aesthetic value through the artist's perspective on creation. However, digital artwork can be copied endlessly without compromising on quality. Even though this undermines the value placed on rarity and exclusivity, it does pave the way for more people to experience and learn from works of art. Conventional artistic forms typically have a fixed physical location and duration of existence. The relationship between the artwork and its surroundings, such as lighting, architecture, or exhibition design, affects the viewer's experience. The aesthetic value aspect does not solely come from the art itself; many factors intertwine to enhance the values. On the other hand, digital art is not limited by location (Kulka, 2022). Dynamic and interactive experiences that can develop over time are made possible by the wide availability of digital platforms such as websites, VR, and AR. The emergence of digital platforms such as online social media, digital galleries, and virtual games creates another possibility for artists to explore and expose their artworks. Conventional art forms frequently involve skilled manual labour, in which artists manipulate and innovate physical materials. The brushstrokes, textures, or sculpting techniques reveal the artist's physical approach to the creative process. It added to the value of the artwork because it represents the artist's aesthetic understanding. The availability to create such refined artworks solely depends on the artists' ability to expose the work's aesthetic value (Seeley, 2022). A digital artist tends to depend on software, algorithms, and programming languages, which are the technical backbone of digital art. This calls for a unique set of abilities from artists, which sometimes takes a toll on the process of artwork creation. To create such artwork, the artist frequently works with engineers, developers, and specialists in their respective professions. Computers, software, and other electronic devices are used to make digital art. The aesthetic outcomes of this unique approach may differ significantly from traditional art. Conventional and digital art styles may both explore a wide range of intellectual concepts. However, digital arts offer more room for exploration and innovation, while conventional arts offer a sense of individuality for the artist. Artists can convey intricate narratives or captivate audiences in fresh ways thanks to the incorporation of sound, motion, interactivity, and data visualisation made possible by the use of technology and multimedia elements. New aesthetic experiences and

expressions may emerge due to this heightened scope for conceptual inquiry. Conventional art, on the other hand, enhances the artist themselves, as the audience is trying to look at and view the creation through the eyes of the artist instead of the artwork itself (Amin & Mohammed, 2022).

2.6. Economic Value

Market demand, income pricing, and the economic elements of art advent and intake are all included in the financial worth of artworks. Previous studies on technology have checked out how digital structures, online markets, and the blockchain era affect the monetary worth of digital artworks. A study of the effect of digital structures on virtual art's economic well-being and marketability was undertaken by Lee and Lee (2019). Traditional works of art, such as paintings and sculptures, are often viewed as scarce because they are one-of-a-kind creations. Collectors and art enthusiasts may be ready to pay extra for an original, one-of-a-kind artwork due to its scarcity. On the other hand, the capacity to quickly duplicate and disseminate digital art calls the idea of scarcity into question. The digital art market, however, has seen the emergence of limited-edition digital art or unique digital works authenticated using blockchain technology, lending an air of exclusivity and rarity to these purchases. The conventional art market has been around for quite some time, and a robust infrastructure of auction houses, galleries, and art fairs supports it. Factors like the artist's fame, the work's historical significance, and the interest of collectors all play a role in determining the market value of traditional art. The art market has changed for digital works because of the medium's novelty. New economic models and revenue streams for digital artists have emerged with the rise of online platforms, digital marketplaces, and NFT (non-fungible token) marketplaces for selling and trading digital artworks (Novakovic, 2021). Provenance and physical documentation are typically used in the conventional art world to establish the ownership and authenticity of an artwork. Art historians, curators, and appraisers play important roles in this procedure. In order to authenticate and verify ownership of digital artwork, blockchain technology and NFTs have emerged as useful tools. The digital art market has seen a rise in the use of NFTs, singular digital tokens representing ownership or proof of authenticity. This has opened up new possibilities for valuing digital works of art by creating traceable ownership histories. The conservation and preservation of traditional artwork call for careful attention to factors like storage, handling, and conservation methods. Due to their material makeup, traditional artworks constantly require upkeep. Since digital artworks are immaterial, they will never deteriorate over time. The problem, however, is that the rate at which technology advances makes it difficult to keep digital files around and ensure they remain accessible and compatible. The economic value of digital art can be affected by the quality of the measures taken to keep it safe and accessible for future generations (Sugimoto, 2014). Due to their digital nature, digital arts can be easily reproduced and distributed, increasing their accessibility to a larger audience. Since physical boundaries do not restrict the availability of digital artworks, this can affect their market value. Traditional forms of artistic expression, both tangible and often produced in small numbers, can command a premium simply because of their perceived rarity and scarcity. However, digital platforms, online sales, and the ability to sell limited editions or digital collectables have the potential to reach a wider audience and create new economic opportunities for artists because of the democratising nature of digital art. It is important to remember that art's monetary worth is relative and subject to change based on several factors, like current market conditions, historical precedent, and personal taste. The economic dynamics of both the digital and traditional art worlds are being shaped and redefined by the dynamic nature of the digital art market (Deng, 2023).

2.7. Social Values

The social values of artworks consist of their impact on societal norms, cultural practices, and shared stories. According to investigations, technology greatly impacts how artwork influences society. As an illustration of the transformational energy of the era in advancing social beliefs, Tian (2023) investigated how digital artwork installations in public settings stimulate social engagement, network involvement, and dialogue. Digital arts have

the potential to democratise and expand access to the arts by lowering traditional entry barriers. Borders do not restrict digital art, thanks to the internet, social media, and virtual exhibitions. This ease of access promotes the dissemination and appreciation of a wider variety of ideas, points of view, and creative works. Although traditional art forms are most commonly associated with private galleries, they can also help broaden access through public art installations, community events, and museums. Technological progress and new ideas are fostered by digital art, which uses computers and other electronic devices as its primary medium. Conventional art forms limit artists' ability to experiment with new methods, resources, and interactive experiences. Because of this willingness to experiment with technology, we may see the emergence of novel artistic practices and the merging of previously distinct fields. When preserving and documenting artistic works, digital media presents both new challenges and opportunities. Due to their ephemeral nature, digital artworks require new digital archiving methods and long-term preservation. This preservationist mindset can be extended to traditional art forms by promoting the digitization of important historical works of art and cultural artefacts. By erasing barriers of distance and language, culture is shared and discussed globally through the digital arts. Digital platforms have enabled artists worldwide to instantly communicate, share ideas, and collaborate. This knowledge-sharing and insight will foster a stronger feeling of community among artists globally. The start of digital arts has led to the development of fresh business models and revenue streams for artists. There are now more options for making money from digital works thanks to digital platforms, online marketplaces, and NFTs (Guljajeva & Sola, 2023). This has the potential to help artists break into new audiences, build their reputations, and make money. Although digital art has a significant economic impact, the art market benefits communities by supporting tourism and creative industries and creating new jobs. The lines between the performer and the audience are often blurred in digital artworks, encouraging audience participation. Interactive installations, Virtual Reality experiences, or digital performances can immerse and captivate viewers. Inviting viewers to become co-creators or collaborators in the artistic experience through active engagement with art promotes a more participatory and inclusive art culture (Sharma, 2023).

2.8. Environmental Value

The environmental worth of a chunk of artwork considers the environmental consequences of its introduction, dissemination, and protection. Numerous studies have checked out how era would possibly assist in reducing the environmental effect of creative practices. Abdoh (2022) and Paschalidou, Fafet, and Milios (2022) looked at methods to boost the environmental worth of artistic endeavours by using sustainable substances and virtual protection strategies. Using physical materials such as paint, canvas, wood, or clay in conventional art practices can lead to resource depletion and waste creation. Environmental impacts such as increased energy demand, water consumption, and greenhouse gas emissions may result from their production, transport, and disposal. In contrast, digital arts have a smaller environmental footprint because they are produced and disseminated digitally. The creation, display, and storage of digital artworks still, directly, and indirectly, affect the environment due to the devices and infrastructure required. Conventional arts often necessitate the transportation of artworks and people, particularly in the context of exhibitions, art fairs, or biennials. When art events span multiple locations or require international travel, this can increase the amount of carbon dioxide released as a result of vehicle travel (Goh, Smith, & Yeoman, 2022). By facilitating digital exhibitions of artworks, digital arts have the potential to lessen the environmental impact of traditional art forms by reducing the number of times artists must physically travel to show their work. As an alternative to traditional art shows, digital exhibitions and online platforms allow artists and viewers to interact with artworks without travelling too far. Distribution and Reproduction: Catalogues, posters, and promotional materials are just some physical items that must be reproduced and distributed for conventional art to thrive. Paper, ink, and other supplies are used up, and energy is expended on transportation for these tasks. On the other hand, digital artworks can be electronically copied and spread, cutting down on the need for physical copies and their associated waste. However, data centres and electronic devices used in storing,

transmitting, and displaying digital artworks have an environmental impact that must be considered (Noaman, 2022). The longevity and protection from damage or degradation of conventional art depend on applying specific conservation and preservation measures. Conservation treatments and safe handling practices are also part of this. Even though digital art is not vulnerable to deterioration over time like physical art, it still needs to be preserved digitally to ensure its continued availability and viability. In order to avoid data loss or file obsolescence, this may require the creation of digital archiving systems and their ongoing management. Adopting sustainable digital preservation practices is essential to lessening the ecological footprint of preserving digital art collections. Environmental effects are associated with the manufacturing, use, and eventual disposal of electronic waste and digital technology. Electronic waste (e-waste) is a byproduct of the rapid pace of technological advancements, which can result in shorter device lifecycles and a higher turnover of electronic equipment (Palaniandy, Yusoff, Wang, & Wang, 2022). To further reduce the environmental impact of creating and enjoying digital art, it is important to address the energy needs of digital devices and the data centres and server farms that support them. Although digital arts may have fewer negative effects on the environment than traditional arts, the broader environmental implications of digital infrastructure, energy consumption, and e-waste must still be considered. The environmental impact of both digital and traditional arts can be reduced by adopting sustainable practices such as the use of materials, the management of energy, and the disposal of electronic waste (Uba, Efut, Obeten, Asuquo, & Uba, 2023).

3. RESEARCH METHODOLOGY

In this study, we embark on exploratory research using qualitative methods, focusing on interview sessions as the main tool for data collection. The study aims to provide information on the advantages of the proposed framework, its applicability to research directions, and the appropriate data analysis techniques that can be used to derive valuable insights from the collected data. Exploratory research is a critical stage in the research process, especially when looking into unexplored or understudied subjects. Exploratory investigations are best conducted using qualitative approaches since they allow researchers to fully grasp participants' opinions and experiences by delving into the topic's complexities. Researchers can gather rich and thorough data from participants directly through interview sessions as the main tool, providing a useful opportunity to study their ideas, emotions, and motives. Researchers can have lively conversations with participants through interview sessions, whether individually or in focus groups. Through inquiry and explanation during this live conversation, participants' opinions and attitudes can be explored more thoroughly. Additionally, interview sessions make it easier to gather context-rich narratives, giving participants' experiences and perspectives on the research issue a thorough grasp. This study has approached and gathered three expert artists in Sarawak, Malaysia, for a focus group session to discuss the proposed conceptual framework. All participants were given an underlining of the topics and further elaborated on the purpose of the study as an attempt to direct the conversation and discussion toward achieving a consensus to develop the finalised conceptual framework for the Art Essence Intricacy Performance Model. We used organised data analysis techniques within the focus group session to obtain useful findings from the interview data. A typical qualitative analysis technique included in this study is thematic analysis, which entails systematically spotting and examining recurrent themes or patterns in the interview transcripts. Through an iterative procedure, themes develop, allowing researchers to classify and analyse the data.

4. FINDINGS

During the focus group session, the experts in applied arts in the fields of hybrid art, graphic art, and fine arts were gathered and explained the attempted conceptual framework. The experts were given an overview of the research purpose and the direction of the proposed conceptual framework for the Art Essence Intricacy Performance Model. A discussion session was held regarding the topics, and a new conceptual framework was

developed to properly address the issues at hand. Three aspects were raised during the session, which are: i) the technological advancement of art; ii) the variable changes based on types of art; and iii) the distinctive performance evaluation.

4.1. The Technological Advancement of Arts

Several indications need to be addressed as we go through the aspects of the discussed topics. When we look at art advancement, we cannot look at digital arts as a separate entity in the art chronology. Digital arts have been seen as differentiated as the output of the arts has different initiatives and perspectives. As art practitioners, artists need to look back at the basics of art, where the representation of the arts matters most in the discussed topics. There is no separation in the definition of conventional arts and digital arts, as the fundamentals of art come from the same root. The only difference is in its definition of technological advancement, which involves techniques, mediums, media, and platforms. Three basic chronological technological advancements in the arts are illustrated in Figure 3.
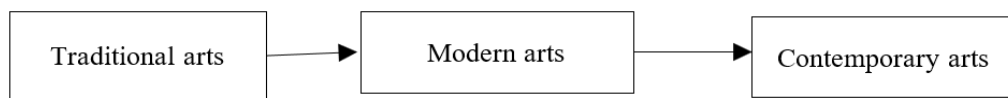

Figure 3. The technological advancement of arts.

Artists need to look at digital arts as part of the chronological advancement of technology as it has evolved through time. Several aspects of arts outcomes have been interpreted as such, but when it comes to digital arts, artists tend to evaluate them separately as their demeanour is different from the usual.

4.2. Interpretation of Arts

4.2.1. Traditional – Imitation of Subject, Environment, and Material

Malaysia's rich and varied traditional art reflects the nation's multicultural heritage and historical influences from numerous areas. Malaysian art is frequently drawn from the nation's culture, history, and natural surroundings. Several popular topics included rituals of a cultural or religious nature, traditional ceremonies, festivals, and religious acts that are frequently shown in art. Additionally, nature and wildlife, lush landscapes, tropical vegetation, and regionally specific species are frequently shown in Malaysian traditional art. With its vast multi-racial and ethnic diversity, traditional art has embraced folklore and mythology, conventional myths, legends, and folktales as sources of inspiration. Traditional Malaysian art examines the historical background, cultural relevance, and artistic methods related to particular art forms. Artists inspire and investigate the historical roots, ongoing development, and social significance of traditional artistic activities. Traditional artistic practices cover a wide range of aesthetics and have numerous regional variants. Among the well-known techniques is using wax to make patterns before applying colour; batik is a distinctive technique for dying fabric. Intricate wood carvings are produced by skilled artists and are frequently utilised in building and ornamental arts. Songket weaving is a time-consuming process that results in intricately patterned and brocaded fabrics, which are frequently used for traditional apparel. Malaysian traditional art is distinguished by a feeling of continuity and the protection of cultural heritage. Although there have been modern and contemporary art trends in the nation, traditional art frequently continues to be based on age-old traditions and methods that have been handed down through the centuries through apprenticeship and inheritance. Depending on the medium, several materials are utilised in traditional Malaysian artwork. Typical materials consist of natural pigments to produce vivid colours; artists employ pigments originating from plants, minerals, and other natural sources. They used natural fibre materials like cotton, silk, and bamboo. Furthermore, wood carving is also integrated with the process of creating sculptures, masks, and decorative items out of various types of wood. Ornate jewellery and decorative items are made from

metals including brass, silver, and gold. Thus, Malaysian traditional art displays a wide variety of subject matter drawn from the nation's history, culture, and natural environment. Unique art forms are created using a variety of methods and techniques, frequently handed down through generations. Research explores the historical and cultural relevance of these conventional artistic techniques, with the art movement frequently emphasising the preservation of cultural legacy. Natural materials that are representative of the region's resources and crafting traditions are frequently employed in traditional Malaysian art.

4.2.2. Modern – Study of Form, Changes in the Industrial Revolution, Technical Development

The field of modern art in Malaysia has grown significantly over the past century and is still expanding now. Malaysian modern artists frequently employ novel techniques and consider a wide range of subject matters in their work, which reflects the nation's shifting social, political, and cultural landscape. The following list of traits of modern art in Malaysia includes its themes, techniques, movements, research, and materials. Frequently, the subject matter covers a wide range of subjects, straying from conventional art themes. Some popular topics include social and political topics; they remark on societal themes including urbanization, globalization, human rights, and identity in their works of art. With a rich cultural diversity, modern artists tackle issues of ethnicity, religion, and cultural heritage, reflecting Malaysia's varied society. Nonetheless, with the issues of degradation and the government's agenda towards sustainability within the scope of the 17 Sustainable Development Goals, the artist tends to push for environmental consciousness. As environmental awareness rises, more and more artists are addressing problems like pollution, climate change, and deforestation. Self-expression in the arts also becomes the sole subject in modern art as artists use their artwork to share their unique ideas, feelings, and experiences. Modern art in Malaysia is created in a variety of experimental ways. Modern art uses both traditional techniques and innovation in its creation. The artist started to experiment with mixed media to produce multi-dimensional artworks. Artists combine materials including acrylic, oil, collage, and digital elements. Artists introduce new ways to present art by engulfing it in installation art, in which artists design engrossing, site-specific installations that engage the viewer and the immediate environment. Live performances of dance, drama, or other artistic expressions are a part of performance art and were included as part of the installation arts in the sense that each movement is relatively in sync with the new time-based media arts. In engaging movement in art expression, an exploratory spirit and aesthetic freedom define Malaysian modern art as it is influenced by international art trends. The incorporation of modern media and technology, social criticism, and cultural identity are some of the overriding themes that have been put on stage. The development of modern art in Malaysia, its influences, and how artists react to national and international challenges are all examined as it examines how institutions' support, art instruction, and art galleries influence the growth of modern art in the nation. The variety of materials used in Malaysian modern art frequently reflects the experimentation and inventiveness of the artists. Acrylic and oil paints are still popular painting mediums, and artists frequently combine them with cutting-edge methods and trends. Nonetheless, innovativeness combined with intellectuality led many artists to start using everyday and natural materials in their works, fusing the realms of art, nature, and life. With the advancement of technology, the introduction of digital media produces digital art, such as computer-generated imagery (CGI) and interactive installations, which are becoming more comprehensive in today's modern arts. In response to environmental concerns, several artists include sustainable messages in their works using recycled materials. In conclusion, modern art in Malaysia is a dynamic and varied field that incorporates a wide range of methods and materials while examining a wide range of issues. It adopts contemporary international artistic trends while reflecting the nation's changing social, political, and cultural setting. In order to contribute to Malaysia's thriving modern art scene, artists utilise their work to engage with current topics, communicate personal narratives, and experiment with cutting-edge techniques.

4.2.3. Contemporary – Technological Development, Media Exploration, Non-Traditional Material

Contemporary art in Malaysia represents the current advancements and trends in the art scene while addressing regional problems and cultural identities. In Malaysia, the subject of contemporary art is quite varied and examines a wide range of topics, frequently touching on intricate and multifaceted issues. Some popular topics include identity and multiculturalism, social and political issues, and technology and globalization. Artists try to portray the backdrop of Malaysia's diverse cultural landscape; they explore issues of personal and collective identities. Contemporary artists speak to issues like inequality, human rights, and political changes that are currently facing society. Artists investigate the effects of accelerating technological change on people and society. Further developing environmental protection and sustainable methods, which are more common subjects in contemporary art, Malaysian contemporary artists frequently push the boundaries of conventional creative approaches by using a variety of cutting-edge and experimental methods. Typical techniques include digital media, video, virtual reality, and interactive installations, all elements of new media art. Conceptual art pushes the boundaries of conventional ideals of art by emphasising ideas and concepts over aesthetics. Large-scale, immersive works that engage the audience and the environment are known as "installation art." Malaysian contemporary art exhibits a pluralistic and diversified approach rather than adhering to a particular dominant movement. While infusing regional inspirations and storylines into their work, artists are influenced by a variety of global art movements. The contemporary art scene is also characterised by collaboration and multidisciplinary techniques. A collaborative movement has reached out to many stages of arts participation, from community development to public participation. The terms "co-creation" and "community arts" have brought out new definitions of the meaning of the arts and their function for the audience. The need to investigate how technology, globalization, and cultural changes have affected how contemporary art is produced and viewed in Malaysia We also look at how curatorial methods, galleries, and art institutions have shaped the contemporary art scene. In summary, contemporary art in Malaysia is a dynamic and complex genre that examines a wide range of issues and makes use of a variety of techniques and materials. It embraces contemporary technologies while reflecting the nation's changing sociocultural context and other artistic influences. Contemporary artists in Malaysia consistently push boundaries, subvert established creative norms, and add to the dynamic and ever-evolving world of contemporary art.

4.3. Variables Changes According to Types of Art

As we proposed in the conceptual framework for the art essence intricacy performance model (Figure 1), four variables were mentioned: Sense of Ownership, Arts Understanding, Content and Context, and Artist Credibility. The proposed variables were mentioned by looking at the difference between their relationship with conventional arts and digital arts. Through the focus group session, the participants emphasised that the variables do not link through the application and tools of the arts but directly through the movement of the arts and its chronological aspects. We cannot judge the output of artwork as it is based upon technological advancement and acceptance at a particular time. Instead, we need to look at the variables through the changes in art movements, where artists tend to change their perspectives on art. Nevertheless, there are opinions that, due to technological advancement and innovative approaches to the arts, artists tend to shift their focus there. It is empirical to observe the advance of technology as the shift changes prove to be crucial in determining the factors that drive artists in Malaysia to shift their understanding and credibility to produce artworks. Periodically, it enables artists to pass on their sense of ownership based on their understanding of their place in the art world.

4.4. The Distinctive Performance Evaluation

In terms of the distinctive performance evaluation, it is arguable that the performance indicators are varied according to the periodic advancement of each timeline in the art movement. To focus on the aesthetic value, the

sense of aesthetic evaluation is unable to be measured as the audience characteristic for each art is different. There are no distinguishing labels to view a significant distinction in aesthetic value for it to be recognised as part of the performance indicator. We can recognise aesthetic value as an indicator to differentiate performance through acceptance by the mass public within the current market. It needs to be viewed within the timeline of its creation in coherence with its acceptance by the audience. Measuring the economic value has provided the same issues as well as its significance. When we look at the ownership of the arts, it depends on who has the final ownership of said arts and holds the value of their economic performance. If we look at the period of traditional arts in the Renaissance era, artworks mostly belonged to the religious faction and not the artists themselves. This can be the same for the Malaysian art scene, where most traditional arts created are mostly for the ownership of others. The sense of economic value has no indicators to measure performance. Sense of ownership has transited from outsourcing toward the artist during the modern era, as the artist produces artwork and proclaims ownership of the artwork. Periodically, the indicators have again shifted due to economic factors during the contemporary movement, when artists have developed collaboration, co-creation, and community art. The sense of ownership has again been distributed equally among the collaborators and the community. The artist tends to shift ownership of the artwork as part of a collective group. Social value and environmental value prove to have the same aspects as the other indicators, as they do not provide significant performance evaluations through the changes in the art movement. As society changes through the generations, the audience and society have changed their values of art. The once-so-called arts have become artefacts, while the once-so-called vandalism has become mural arts as part of tourist attractions. The shifted societal performance is proven to be due to the acceptance of current arts as an indicator that the increment of societal value does not link with the changes in the art movement. We need to look at the societal changes in performance based on the value of the arts during a certain period. The probability of the arts changing their priority in developing the environment and society depends solely on the audience and not the artwork itself. It is distinctive to prove that the shift in technological and artistic movements can increase or decrease society's and the environment's performance.

5. DISCUSSION

The study has described several empirical findings from the session with the experts in the art and design society. This study needs to acknowledge the importance of the input given as part of the development of the Advance Conceptual Framework for the Art Essence Intricacy Performance Model. Figure 4 illustrates the improvement made to the conceptual framework based on the discussion between the experts to ensure that the framework is able to execute properly. This study has developed a suitable framework to measure the art essence's intricacy to help artists recognise the intrinsic value of their artwork and further indicate its performance values. We have aligned all art essence periodically, as it shows that it needs to be aligned with the art movement. This shows that the shifting art movement will align with the intrinsic value of the art produced. The concept of art essence intricacy shows that a sense of ownership, art understanding, content and context, and artist credibility change through the advancement of art, either through technological advancement or the creation of a new stream of art. Each art movement represents its own art essence, intricacy level, and characteristics that can be recognised as having value through its development in its period. The advancement of technology that helps artists become inventive and innovative drives the development of the characteristics of art essence that match the target timeline as each new style of artwork separates the meaning and understanding of art itself. Through the development of art, artists need to study their creation's essence and intricacy to fully understand and describe the masterpiece's value in terms of aesthetic, economic, social, and environmental values. Each performance indicator is measured separately depending on the characteristics of the artwork and its intricacy. Different art essence characteristics produce different performance indicators that help artists understand the value of their creations.
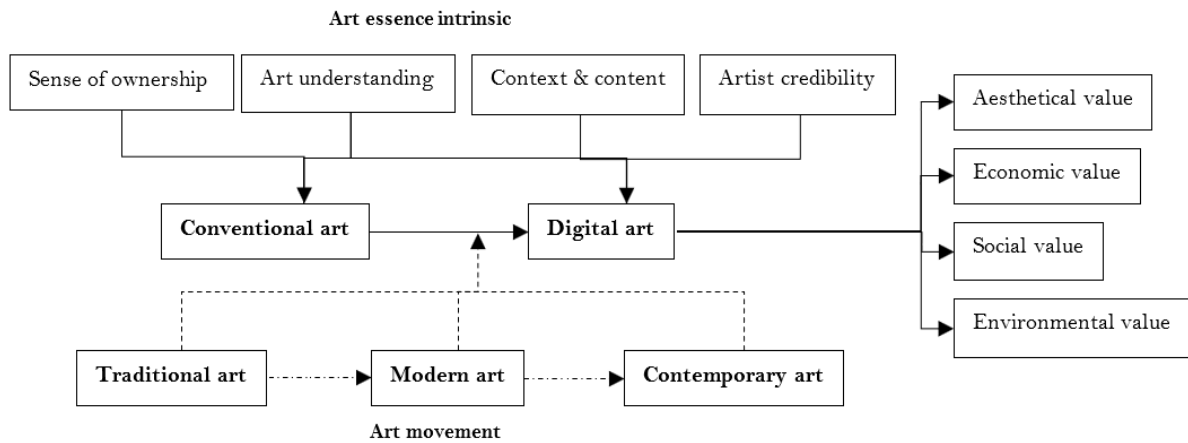
Figure 4. The advance conceptual framework for art essence intricacy performance model.

6. CONCLUSION

Today's current art ecosystem is filled with different eras of artists who produce artwork with their understanding. We can see many artworks produced currently filling up galleries around the world that both have their agendas and objectives for presenting art. From well-known artists to apprentices, artwork has been developing without any boundaries. The compilation of all traditional, modern, and contemporary arts fills in the ecosystem that determined the foundation of the art world. From the solo artist to several artists or collaborators working together to realise a common goal, the sense of ownership for the resulting art piece can be intricate and nuanced. Frequently, everyone who helped create a piece of art will feel like they have a stake in it. The final product is frequently the result of the team's collaborative effort, with each member contributing their distinctive viewpoint and original ideas. However, factors such as one's function in the project, degree of contribution, and degree of acknowledgement can also affect one's sense of ownership. The arts frequently require a fine-tuned balancing act between individual and group creativity to achieve a shared sense of continuity. From the master to apprentices, from teacher to student, a new way of art development with the development of the Advance Art Essence Intricacy Performance Model, artists can better understand their creations and further describe their values to enhance their creativity and productivity in the art world.

REFERENCES

Abdoh, S. A. (2022). Art and sustainability: Can digital technologies achieve sustainability? *Journal of Cultural Heritage Management and Sustainable Development.* https://doi.org/10.1108/jchmsd-03-2022-0038

Acomi, N., Acomi, O., Akceviz Ova, N., Akilli, A., Anlar, E., Martinez, A. H., . . . Zorzi, S. (2023). Creativity and arts in digital social innovation. Zenodo. https://doi.org/10.5281/zenodo.8052835

Amin, M. J., & Mohammed, S. S. Q. (2022). *The relationship between aesthetic experience and conceptual art*: Salahaddin University, College of Language. http://doi.org/10.31918/twejer/2253.9.

Bañez, R. M. (2023). Thematic construction of digital visual arts: Implications for digital pedagogy. *Journal of Learning for Development, 10*(2), 196-209. https://doi.org/10.56059/jl4d.v10i2.773

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*, e00309. https://doi.org/10.1016/j.jbvi.2022.e00309

Deng, S. (2023). Market and commercialisation of digital media. *Frontiers in Business, Economics and Management, 10*(2), 317-319. https://doi.org/10.54097/fbem.v10i2.11062

Fang, J., & Zhu, X. (2023). On the application of digital media art and programming technology in public art. *BCP Social Sciences & Humanities, 22*, 175–182. https://doi.org/10.54691/bcpssh.v22i.5358

Gillespie, J. D. (2011). *The portable art gallery: Facilitating student autonomy and ownership through exhibiting artwork.* Theses and Dissertations.

Goh, S., Smith, K. A., & Yeoman, I. S. (2022). We are serious event travelers: Event travel careers and the social worlds of arts practitioners to international arts festivals and events. *Event Management, 26*(6), 1275-1296. https://doi.org/10.3727/152599522x16419948390880

Gong, Y. (2021). Application of virtual reality teaching method and artificial intelligence technology in digital media art creation. *Ecological Informatics, 63*, 101304. https://doi.org/10.1016/j.ecoinf.2021.101304

Guljajeva, V., & Sola, M. C. (2023). NFT shop and making sense of the NFT art market. Is NFT a blessing or a curse to digital art? https://doi.org/10.31235/osf.io/xm3jb

Jones, C. T., Rice, C., Lam, M., Chandler, E., & Lee, K. J. (2021). Toward technoaccess: A narrative review of disabled and aging experiences of using technology to access the arts. *Technology in Society, 65*, 101537. https://doi.org/10.1016/j.techsoc.2021.101537

Kulka, T. (2022). On the relative unimportance of aesthetic value in evaluating visual arts. *British Journal of Aesthetics, 62*(1), 63-79. https://doi.org/10.1093/aesthj/ayab027

Lee, J. W., & Lee, S. H. (2019). User participation and valuation in digital art platforms: The case of Saatchi art. *European Journal of Marketing, 53*(6), 1125-1151. https://doi.org/10.1108/ejm-12-2016-0788

Li, X., Ma, S. D., & Wu, M. (2023). What makes social media branding more effective in shaping pre-visit image: Information quality or source credibility? *Tourism Management Perspectives, 46*, 101084. https://doi.org/10.1016/j.tmp.2023.101084

Liang, P.-H., & Chi, Y.-P. (2021). Influence of perceived risk of blockchain art trading on user attitude and behavioral intention. *Sustainability, 13*(23), 13470. https://doi.org/10.3390/su132313470

Liu, H. (2021). Application and development of VR technology in painting. In Journal of Physics: Conference Series (Vol. 1744, No. 4, p. 042225). IOP Publishing.

Manchón, S. M. A. (2021). *The impact of artists on consumer's behavior: A study on how artists influences on consumer's purchasing behavior in Latin countries.* Retrieved from https://urn.kb.se/resolve?urn=urn:nbn:se:hj:diva-54619

Mäyrä, F. (2008). *An introduction to game studies*: SAGE Publications Ltd. https://doi.org/10.4135/9781446214572.

McConaghy, M., McMullen, G., Parry, G., McConaghy, T., & Holtzman, D. (2017). Visibility and digital art: Blockchain as an ownership layer on the internet. *Strategic Change, 26*(5), 461–470.

Mogno, S., & Nuccio, M. (2023). *Platform-enabled business models in the arts: The impact of digital transformation on visual arts networks. In: Moretti, A., Balzarin, L. (Eds.), New Perspectives in Network Studies.* Cham: Palgrave Macmillan.

Noaman, A. A. (2022). The impact of the use of electronic and digital devices before bedtime on sleep sufficiency among Iraqi young people. *Journal of Community Health Research, 11*(3), 144-149. https://doi.org/10.18502/jchr.v11i3.10865

Novakovic, J. (2021). A female artpreneur in a digital age - the case of Serbia. *Journal of Women's Entrepreneurship and Education*(3-4), 151-163. https://doi.org/10.28934/jwee21.34.pp151-163

Palaniandy, P., Yusoff, M. S., Wang, L. K., & Wang, M. S. (2022). Electronic and electrical equipment waste disposal. In: Wang, L.K., Wang, MH.S., Hung, YT. (Eds.), Solid Waste Engineering and Management. Handbook of Environmental Engineering. In (pp. 115-161). Cham: Springer.

Paschalidou, E., Fafet, C., & Milios, L. (2022). A strong sustainability framework for digital preservation of cultural heritage: Introducing the eco-sufficiency perspective. *Heritage, 5*(2), 1066-1088. https://doi.org/10.3390/heritage5020058

Samah, A. A., Putih, A. T., & Hussin, Z. (2016). Digital tools – enhancing painting skills among Malaysian secondary students. *Turkish Online Journal of Educational Technology, 15*(3), 58-67.

Samdanis, M. (2016). The impact of new technology on art. In J. Hackforth-Jones, I. Robertson (Eds.), ArtBusiness Today: 20 Key Topics,. In (pp. 164-172). London: Lund Humphries.

Seeley, W. P. (2022). Artists, artworks, aesthetics, cognition In: Brain, Beauty, & Art. Edited by: Anjan Chatterjee and Eileen R. Cardillo. In (pp. 132): Oxford University Press. https://doi.org/10.1093/oso/9780197513620.003.0027.

Shahbaznezhad, H., Dolan, R., & Rashidirad, M. (2021). The role of social media content format and platform in users' engagement behavior. *Journal of Interactive Marketing, 53*(1), 47-65. https://doi.org/10.1016/j.intmar.2020.05.001

Sharma, S. (2023). Collaboratively reimagining spaces through socially-engaged creative practices. *Interactive Film & Media Journal, 3*(2). https://doi.org/10.32920/ifmj.v3i2.1776

Simanowski, R. (2011). *Digital art and meaning: Reading kinetic poetry, text machines, mapping art, and interactive installations* (Vol. 35): University of Minnesota Press. https://doi.org/10.5749/minnesota/9780816667376.002.0008.

Sugimoto, S. (2014). Digital archives and metadata as critical infrastructure to keep community memory safe for the future– lessons from Japanese activities. *Archives and Manuscripts, 42*(1), 61-72. https://doi.org/10.1080/01576895.2014.893833

Tagliaferri, L., Dinapoli, L., Casà, C., Colloca, G. F., Marazzi, F., Cornacchione, P., . . . Bartoli, F. B. (2022). Art and digital technologies to support resilience during the oncological journey: The Art4ART project. *Technical Innovations & Patient Support in Radiation Oncology, 24*, 101-106. https://doi.org/10.1016/j.tipsro.2022.10.004

Tian, J. (2023). *On the application and influence of interactive installation in urban public art*. Paper presented at the International Conference on Human-Computer Interaction.

Uba, U. J., Efut, E. N., Obeten, U. B., Asuquo, E. E., & Uba, J. C. (2023). Sociodemographic factors and environmental workers' knowledge of the impact of awareness creation on sustainable disposal of solid wastes. *Heliyon, 9*(7), E181122. https://doi.org/10.1016/j.heliyon.2023.e18122

Wang, V., & Wang, D. (2021). The impact of the increasing popularity of digital art on the current job market for artists. *Art and Design Review, 9*(3), 242-253. https://doi.org/10.4236/adr.2021.93019