AI TEXT PROMPTS IN THE DECONSTRUCTION OF NEW SKILLS AND PROFESSIONS IN THE CREATIVE WORLD

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Abstract: The integration of AI into Visual Communication Design (DKV) has revolutionized the creative design profession. This research aims to identify emerging new skills as a result of using AI prompts, analyse how these skills shape new professions in the industry, and assess the relevance of Visual Communication Design education curricula in the context of AI development. A qualitative approach was employed in this study, including literature reviews, interviews with industry practitioners, and content analysis of various AI platforms used in creative processes. This study reveals that the use of AI text prompts has given rise to various new skills, including the ability to formulate creative and effective prompts. The study also demonstrates that AI text prompts have been a catalyst for the emergence of new professions and skills relevant to the AI era. Consequently, there is a gap between the industry's need for DKV graduates with AI skills and the existing design education curricula. To bridge this gap, universities need to update their curricula and integrate AI learning into their programs, as the ability to adapt to new technologies and develop relevant skills will be key to the success of future designers.

Keywords: Artificial Intelligence, Art Education, Deconstruction, Prompt, Visual Communication Design

Introduction

1.1. Background

The digital revolution has brought significant changes in various fields, including visual communication design. One of the most prominent developments is the integration of artificial intelligence (AI) in the creative process. AI, with its ability to process information on a large scale and learn from data, has opened up new opportunities for designers to produce innovative and efficient works. One form of interaction between humans and AI in design is through text commands. Text commands are instructions given to an AI model in the form of natural language to produce a specific visual output. In other words, designers can "instruct" AI to create images, illustrations, or even animations that match their imagination. The ability to formulate effective text commands is key to harnessing the potential of AI in design. A good command of text includes not only clear visual descriptions, but also considering aspects such as style, atmosphere, and context. In this way, designers can produce various design variations quickly and efficiently. This allows designers to explore their creative ideas more widely and produce unique works. Intelligence is the ability to act purposefully, think rationally, and deal with one's environment effectively. In general, it can be concluded that intelligence is a mental ability that involves rational thinking processes. Therefore, intelligence cannot be observed directly, but must be inferred from various concrete actions, which are manifestations of rational thinking processes (Rismanita et al., 2011).

The ability to formulate creative and effective text commands allows designers to produce a wide variety of designs quickly and efficiently, opening up new avenues for visual exploration. Exploration requires creative abilities, which will become an investment in skills in the future for graphic designers, illustrators or animators. In scientific studies, creativity is considered to be an important investment for creative people (creative workers). Creativity investment theory (Sternberg & Lubart, 1991, 1995) is a confluence theory that states that creative people are those who are willing and able to "buy low and sell high" in the realm of ideas (see also Rubenson & Runco, 1992, for the use of concepts from

economic theory). Buying low means pursuing good ideas unknown or unloved but has growth potential. Often, when these ideas are first presented, they are met with resistance. Creative individuals persevere in the face of this resistance and eventually sell out at a premium, moving on to the next new or unpopular idea. According to investment theory, creativity requires the confluence of six distinct but interrelated resources: intellectual ability, knowledge, thinking style, personality, motivation, and environment. Although the level of these resources is a source of individual differences, often the decision to use resources is a more important source of individual differences. (Sternberg, 2006). The digital revolution in the creative industry is indeed underway with AI, but it is not going smoothly because it is full of conflict and resistance from various parties. Quoting a USA Today media report dated July 25, 2023, the union 'SAG-AFTRA' represents approximately 160,000 actors, announcers, broadcast journalists, dancers, DJs, news writers, news editors, hosts, puppeteers, recording artists, singers, acrobats, voice-over artists, and other media professionals, in the United States, staged a strike by video game players over the AI polemic. Video game voice actors and players *motion-capture* called for a strike over the failure of labour contract negotiations focused on artificial intelligence (AI)-related protections for workers, resulting in another work stoppage in Hollywood (Fig.1). The strike follows months of protracted negotiations with major video game companies, including *Activision Productions, Electronic Arts, Epic Games, Take-Two Interactive, Disney Character Voices,* And *WB Games* owned by Warner *Bros Discovery.*

Figure 1. SAG-AFTRA union members protest against AI in Los Angeles, July 12, 2023. (Source: USA TODAY/ picture alliance/ Photo: Robert Hanashiro)

1.2. Topic

Skills in composing text 'prompt' has become a new foundation in the world of visual communication design. *Prompt*, which may have been thought of as simple instructions, has now developed into an art form in itself. Ability to formulate *prompts* an effective one involves not only a good command of the

language, but also a deep understanding of how AI models work. Engineering *prompt* has experienced a very rapid evolution, from a basic level such as the instructional text 'make it cat drawings' to advanced levels involving the use of complex techniques to produce highly specific and detailed works of art. The emergence of the concept of text prompts has given birth to unique and interesting new professions. Terms like *Prompt Engineer*, *AI Art Director*, or *AI Content Creator,* now heard more and more often. These professions focus on development and optimization *prompt* to produce *output* AI that suits client needs. The demand for these professions continues to increase as the use of AI becomes increasingly popular in various industries. Expertise in engineering *prompt* not only needed by graphic designers, but also by writers, marketers, and various other professionals who want to harness the power of AI.

In optimization studies *Prompt* use *In-Context Few-Shot Learning* for Text-to-Image (image synthesis) generative models, which deal with image quality; stated that currently various text-to-image generative models have been released, demonstrating its ability to generate high-quality synthetic images from *prompt* text. Nonetheless, decisive *prompt* the right image to get the desired image is still a challenge. The quality of synthetic images depends greatly on *input* users, making it difficult to achieve consistent and satisfactory results. These limitations have triggered the need for optimization methods *prompt, which* is effective for automatically generating text prompts optimized for text-to-image generative models. Therefore, this study proposes an optimization method *prompt* that uses the method *in-context few-shot learning* in a pre-trained language model. The proposed approach aims to produce *prompt* Optimized text to guide the image synthesis process by leveraging contextual information available in multiple text examples. The research results show that synthetic images are produced using optimization methods *prompt* the proposed one achieves higher performance, on average by 18%, based on an evaluation metric that measures the similarity between generated images and *prompt* for generations. (Lee et al., 2023)

The significance of this research lies in its potential to provide a more efficient and automated approach to obtaining high-quality synthetic images. These findings show that optimization *prompt* can be a promising path for text-to-image generative models. Rapid developments in technology *prompt* have forced designers to reconstruct skills they had previously mastered. Traditional design skills that focus on manual manipulation of images are now complemented by the ability to generate images automatically via *prompt*. For example, a graphic designer who is familiar with *Adobe Photoshop* now need to learn how to use the feature *AI generated* to produce initial design concepts quickly. These

changes not only change the way designers work, but also require them to continuously learn and adapt to the very rapid development of AI technology. During the political campaign ahead of the elections in Indonesia, it was seen how widespread AI images with good quality were in the design of outdoor media publications, print media and digital media. Image quality can be seen from the final rendering results, and from the synchronization of the visual style used, as in the image (Fig.2) below:

Figure 2. The widespread use of AI in Indonesian political campaigns in 2024. Source: IG @farisalmn

1.3 Research Questions

This research raises several fundamental questions related to the impact of text commands on the world of visual communication design, namely as follows:

a. **How identifying the ability to formulate effective text commands changes the creative work process of designers.** These changes can occur in various aspects, from the initial stages of idea development to the final stages of design completion.
b. **How identifying text command skills will change the role of designers in the creative industries.** If previously designers focused more on manual visual manipulation, now they are required to have the ability to formulate appropriate instructions for machines. This change in role will have an impact on work dynamics within the design team and on the designer's position in the production chain.
c. **How to identify the visual communication design education curriculum needs to be adjusted to accommodate developments in text command technology.** The important question that will be answered is what skills design graduates must master so that they can compete in an increasingly competitive job market. This study will also explore effective instructional

methods for teaching text command skills.

d. **The research also identifies the challenges and opportunities faced by designers in an era where text commands are becoming an increasingly important tool in the design process.** On the one hand, text commands open up new opportunities to produce innovative and efficient works. However, on the other hand, text commands also raise new challenges, such as ethical issues, algorithm bias, and the potential for replacing human labour.

1.4 Research Objectives

This research aims to dig deeper into the phenomenon of the emergence of expertise *Prompt* in the world of visual communication design and its implications for various aspects, ranging from the development of new professions, to educational transformation. Specifically, this research has three main objectives:

a. **This research aims to analyse the ability or expertise to formulate text commands (*Prompt*), which has effectively given birth to new professions in the DKV creative industry.** Profession like *AI Art Director* And *AI Content Creator* is a real example of how engineering skills work *prompt has* opened up new job opportunities.

b. **This research aims to analyse new scientific disciplines that are present, and are relevant to utilization *Prompt* in Visual Communication Design.** The discipline of photography in visual sports will present studies of related sciences *AI Digital Imaging* And *AI Game Development and this* is an example of how skills *prompt* has integrated him with various creative fields more specifically.

c. **This research aims to analyse and develop a framework for learning integration *Prompt* into the visual communication design education curriculum.** This research will focus on identifying specific skills that designers need to master in the AI era, as well as developing effective learning methodologies to teach these skills. It will also propose AI-based design projects that can be integrated into the curriculum to provide a more realistic learning experience for students.

1.5 Research Implications

The findings, contributions and significant impacts of this study on the field of DKV will be described as follows:

a. The presence of valuable insights for the creative industry, especially in human resource development. By understanding how the role and function of text commands (*Prompt*) will change the job landscape of designers, the creative industry can design more relevant and effective

training and development programs. The findings of this research can inspire the creation of new products and services that harness the power of AI in visual communications design.

b. The results of this research will have broad implications for policy development in the field of Visual Communication Design. Research findings can be used as a basis for formulating educational policies that are more adaptive to technological developments by developing new curricula that integrate learning *Prompt* early on, and can develop policies related to copyright protection and ethics in the use of AI.

c. The research results will advance our understanding of the relationship between AI and human creativity (SDM) in the context of visual communication design. With an understanding of AI, you can support and complement HR creativity, and you can develop more innovative and efficient design tools and methods. Additionally, this research can also help address concerns regarding the potential for replacing human labour by AI. This research not only contributes to the academic world, but also has very practical implications for the creative industry (DKV), government and society as a whole.

Research Methodology

Quoting the report *East Ventures* (www.east.vc/id), company *venture capital* (VC) that was founded in 2009 and is an investment pioneer *start-up* Indonesia, which wrote that currently AI has begun to be applied in various sectors in Indonesia, starting from logistics, human resources (HR), education, cyber security, to customer service. The Republic of Indonesia's National Strategy for Artificial Intelligence (Stranas KA) 2020-2045 forms the basis for the growth of AI by encouraging collaboration between government, industry, academia and society. To facilitate coordination between the public and private sectors, an Artificial Intelligence Industrial Research and Innovation Collaboration organization (KORIKA) was formed which was established from the Government, Industry, Academics and Community, and an AI Innovation Centre called the Artificial Intelligence Innovation Centre (PIKA). In the education sector, Indonesia already has several examples of AI integration into learning platforms *online*, including Ruangguru. Ruangguru has implemented AI in its service, called Robogu, since 2021. Roboguru allows users to take and upload images of a problem, and will provide answers and ways to solve the problem. By utilizing AI, *platform* education can empower students to learn more efficiently and effectively, ensuring the learning process is tailored to each student.

In the presentation of research studies related to the importance of knowing the early developments of AI itself, as written by *Stuart Russell*, *Peter Norvig*,

in a book entitled *Artificial Intelligence, A Modern Approach*, 2010, which describes the history of artificial intelligence as follows: The first work on what is now generally known as AI was carried out by *Warren McCulloch* and *Walter Pitts* (1943). They used three sources: knowledge about the basic physiology and function of neurons in the brain; formal analysis of propositional logic created by *Russell* And *Whitehead;* and computational theory *Turing*. They proposed an artificial neuron model in which each neuron is characterized as 'on' or 'off', with the switch to 'on' occurring in response to stimulation by a sufficient number of neighbouring neurons. Neuronal states are understood to be 'factually equivalent to propositions proposing an adequate stimulus.' They show, for example, that some network of connected neurons can compute every computational function, and that all logical connectives (and, or, not, etc.) can be implemented by a simple network structure. *McCulloch* And *Pitts* also suggests that properly defined networks can learn. *Donald Hebb* (1949) demonstrated a simple updating rule for modifying the strength of connections between neurons. The rules, which are now called learning *Hebbian*, remains an influential model to this day. Two undergraduate students at Harvard, *Marvin Minsky* And *Dean Edmonds*, built the first neural network computer in 1950. SNARC, as it was called, used 3000 vacuum tubes and a surplus autopilot mechanism from a B-24 bomber to simulate a network of 40 neurons. Then, in *Princeton*, *Minsky* studying universal computing in neural networks. His PhD committee was sceptical about whether this kind of work should be considered mathematics, however *von Neumann* reportedly said, 'If not now, someday it will be considered mathematics.' Minsky later proved an influential theorem that demonstrated the limitations of neural network research. There are a number of early examples of work that could be characterized as AI, but Alan Turing's vision is perhaps the most influential. He gave lectures on the topic as early as 1947 in *London Mathematical Society* and laid out a compelling agenda in his 1950 article 'Computing Machinery and Intelligence.' There, it introduces *Turing Test*, *Machine Learning*, *Genetic Algorithm*, And *Reinforcement Learning*. *Turing* also proposed ideas *Child Programme*, explaining 'Instead of trying to create a program to simulate an adult's mind, why not try to create a program that simulates a child's mind?' (Huang, 2010). Furthermore, from the same book, the history of artificial intelligence is quoted in chronological order, namely as follows:

1. The Beginning of Artificial Intelligence (1943 - 1955)
2. The Birth of Artificial Intelligence (1956)
3. Initial Enthusiasm, Great Hopes (1952 - 1969)
4. Real Reality (1966 - 1973)
5. Knowledge-Based Systems: The Key to Power? (1969 - 1979)
6. AI Becomes an Industry (1980 - present)

7. The Return of Neural Networks (1986 - present)
8. AI Adopts The Scientific Method (1987- present)
9. The Emergence of Intelligent Agents (1995 - present)
10. Availability of Very Large Datasets (2001- present)

In generative arts research entitled '*What is Generative Art? Complexity Theory as a Context for Art Theory'* a definition of Generative Art is presented, namely: useful generative art must (1) include a group of known past and present generative art activities, (2) allow for forms of generative art that have not yet been discovered, (3) exist as part of all art while allowing the definition of 'art' is debatable, and (4) is restrictive enough that not all art is generative art. Good views from top down or bottom up, the defining aspect of generative art seems to be the use of autonomous systems for the creation of works of art. Another definition that is also presented is; Generative art refers to any artistic practice in which the artist uses a system, such as a set of natural language rules, a computer program, a machine, or other procedural invention, driven with some degree of autonomy that contributes to or produces a complete work of art. A key element in generative art is a system to which the artist cedes some or all subsequent control. Here are some observations about this definition. First, note that the term generative art is simply a reference to how art is created, and makes no claim as to why art is created in this way or what its content is. Second, generative art does not depend on any particular technology. Generative art may or may not be 'high tech'. Third, the system that moves art practice into the realm of generative art must be well defined and independent enough to operate autonomously. So, if systems are in some sense a defining aspect of generative art, it is worth asking whether all systems are the same, or whether there is a useful way to sort them and thereby, implicitly, sort out the different types of generative art (Galanter, 2003). The data presented above is part of the research carried out to complete the analysis stages in this research methodology, namely:

A. Literature Review

A comprehensive literature review will be conducted with a focus on the intersection between AI and design, as well as related fields such as the sociology of work and learning theory. Data will be sourced from academic databases and other relevant publications, such as books, scientific journals and scientific articles related to AI.

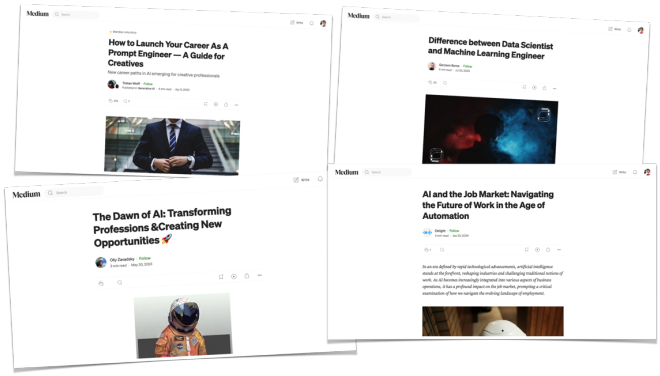

Figure 3.
Articles with the theme of AI on the site 'Medium', one of the online media that often discusses the theme of AI and the latest technology. (Source: medium.com)

B. Practitioner Interview

Semi-structured interviews will be conducted with practitioners who have direct experience of using text prompts in their creative work. Interviews will explore participants' experiences, perceptions of challenges and opportunities, and recommendations for future research. The resource person in this study is an animation practitioner; Fajar Nuswantoro, who uses AI in designing his animation works.

C. Content Analysis

Content analysis of various AI-powered design platforms will be carried out. Data will be collected from text commands (prompts), generated output, and user feedback. This analysis will identify patterns in command usage, image creation, and overall platform adoption.

Data Discussion Analysis

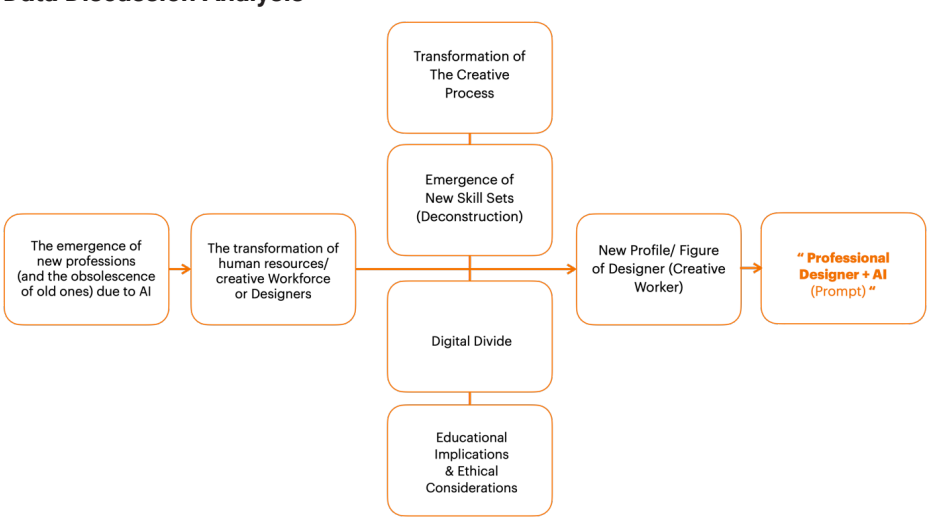

Figure 4.. Research 'Road Maps'
Source: Saut Irianto Manik

A. Transformation of the Creative Process

Text *Prompt* has shifted the design process towards a more data-driven approach, increasing the efficiency of creative work and enabling the exploration of new visual styles. In the era of AI, designers' visual intelligence is more important than ever. Moment *prompt* offering new possibilities (Fig.4), the designer's ability to understand, interpret, and evaluate visual information ultimately determines the success of the final design. There is an important new understanding to uncover that *Prompt* is part of the work process *Machine Learning,* where AI needs to be trained, supplied with idea data from the designer. Not utilizing, borrowing, and using AI databases to design results in a certain style. In the book introduction *Machine Learning: A Probabilistic Perspective* by *Kevin P. Murphy* express the situation transformation of working relationships between humans, AI, and *Machine Learning*, the quote is as follows: Humans are entering an era *big data*. For example, there are about 1 trillion web pages1; one hour of video uploaded to *YouTube* every second, which means 10 years of content every day2; the genomes of 1000s of people, each 3.8 × 109 base pairs long, have been sequenced by various laboratories; *Walmart* handle more than 1 million transactions per hour and has a database containing more than 2.5 petabytes (2.5 × 1015) of information (Cukier 2010); etc. This flood of data requires automated data analysis methods, which machine learning provides. Specifically, we define machine learning as a set of methods that can automatically detect patterns in data, and then use uncovered patterns to predict future data, or to perform other types of decision-making under uncertainty (Murphy, 2012).

In another study related to 'big data' and AI entitled '*The Power of Generative AI: A Review of Requirements, Models, Input–Output Formats, Evaluation Metrics, and Challenges,*' elaborate; Generative artificial intelligence (AI) has emerged as a leading field of study, revolutionizing various domains, such as computer vision, natural language processing, and **creative arts.** The research investigates fundamental aspects of generative AI, including requirements, models, generative types, and evaluation metrics, to gain a comprehensive understanding of this growing discipline. The increasing availability of large-scale data sets, coupled with advances in deep learning techniques, has driven the rapid development of generative AI. The ability to generate data that mimics real-world characteristics has the potential to address a variety of challenges, including data augmentation, anomaly detection, and creative content creation. By understanding the requirements, models, generative types, and evaluation metrics in generative AI, researchers and practitioners can create **the right decision when designing** and implementing generative systems. Recent statistics highlight the growing interest and impact of generative AI.

Precedence Research has reported that the worldwide generative AI market was worth USD 10.79 billion in 2022. It is projected to reach approximately USD 118.06 billion by 2032, with a compound annual growth rate (CAGR) of 27.02% over the period 2023 to 2032.

These examples illustrate the incredible potential of generative AI in transforming creative industries, content creation, and human-machine interactions, paving the way for further advances in image synthesis, text generation, and beyond. Generative AI is an integral part of the evolving Web 3.0 landscape, characterized by advances in technology and user experience. Table 1 compares the attributes of Web 1.0, Web 2.0, and Web 3.0 and provides a comprehensive overview of the evolution of the web, highlighting significant changes in user interactions, content creation, technology, data management, communications, innovation, data access, computing resources, storage capacity, and examples from Web 1.0 to Web 3.0. (Bandi et al., 2023)

B. The Birth of the New Deconstruction Skills Group

Demand for new skills such as engineering *prompt* has increased, while the relevance of traditional design skills has decreased. While traditional design skills are focused on creating visual elements holistically, text engineering is emerging *prompt,* which is a deconstruction of the process. Designers now need to develop skills in breaking design problems down to text and leveraging AI to produce components that can be recombined to create new designs. Whatever new profession is born because *prompt*, the text remains an expression of the author's or designer's subjectivity. In a study of cognitive linguistics, text and deconstruction are explained. Deconstruction was first popularized by *Jacques Derrida* (1930-2004), a French philosopher. The term deconstruction is taken from the French word '*déconstruire*', which means cancelling development by dismantling the existing order (Gnanasekaran, 2015). However, it needs to be understood that what Derrida means by dismantling is not to destroy, but to see the layers of structure that make up the building.

This means that deconstruction does not aim to find what is true and destroy what is wrong, but rather to uncover small things that are not visible or have never been realized within an existing structure. Deconstruction, as a philosophical thought, wants to bring to the surface what has been hidden, marginalized, or even isolated by tradition. In line with Derrida's thinking, in the process of studying the text, *Paul Ricoeur* not in favour of the method of Romantic Hermeneutics, **where the text is an expression of the author's subjectivity.** *Paul Ricoeur* emphasizes the need for distance, because according to him the text has autonomy so that the distance referred to in this case is not the distance

between the reader and the text, but rather the distance between the writer and reader and the world or themselves when understanding the text (Umbelino & Antonio, 2016). This process is called *Paul Ricoeur* as "distantization". The effect of this distantiation results in a text that can be understood freely which could later lead to new discoveries beyond what is conveyed in the text. (Altiria, 2023)

Furthermore, in the process of harmony between texts and creative work, it is studied through research '*PromptMagician: Interactive Prompt Engineering for Text-to-Image Creation*' with description; the text-to-image generative framework has become a popular and effective interactive paradigm with widespread adoption in academia and the public. The unlimited space of natural language text enables the free expression of artistic ideas and significantly lowers the barrier to image creation. With the rapid development of natural language processing (NLP) and computer vision (CV) technologies, the latest generative models, such as *Stable Diffusion* And *FROM AND 2* has been able to produce relevant and high quality images based on *prompt* text and has shown great potential in downstream tasks, including hyper-realistic video generation and radiology image synthesis. Based on the success of these generative models, researchers and developers have explored a human-model interaction technique called "Prompting". During the creation process, the user create natural language commands that describe preferred image characteristics (e.g., subject and style), adjust model hyper parameters (e.g., guide scale) and try more seeds to obtain the desired output. However, the complexity and ambiguity of natural language can make it difficult for users, especially those unfamiliar with the model, to develop effective commands that trigger the model to produce the desired output.

Additionally, the command can generate different images based on different model hyper parameters. It is difficult to evaluate the quality of commands with limited trials of hyper parameter values. When receiving undesirable image results, users may become confused about whether and how to adjust commands or model hyper parameters. Previous research has proposed an automatic command technique for generating text into images. However, the process of creating images relies heavily on subjective human judgment, which requires humans to be involved in the process to perfect the creation. Some studies suggest using "magic spells" (e.g., keywords) to formulate commands based on large human-annotated corpora. With a text command, the system automatically generates a result set of images with various hyper parameter values and retrieves the corresponding image-command pairs from *DiffusionDB*,large command-image corpus. Then, the system presents a visual

summary of the generated and captured images to guide the exploration of images in various styles. Additionally, users can define image evaluation criteria using descriptive words (e.g., "good" for image quality and "beautiful" for abstract perception) to filter out irrelevant images and focus on a subset of images of interest for efficient exploration (Feng et al., 2023).

C. Digital Divide

This study highlights the urgent need to address the digital divide to ensure equitable access to AI tools and opportunities. This includes providing affordable access to technology, training programs, and support resources for underserved communities. By bridging the digital divide, we can promote inclusivity and prevent further inequality in the creative industries. What needs to be understood further is what AI Generative Art produces through text *Prompt* is visual picture (*image*) which is meaningful and contains communication in the message function. This AI image is applied in many sectors of life, especially as persuasive communication, or marketing communication in the economy. AI images are scattered in many digital media, as well as in conventional media. This situation seems to respond to the statement 'big data' in its impact, namely the flood of AI visuals in people's lives at all levels. *Nicholas Mirzoeff*, 1999, in book *'An Introduction to Visual Culture'* states modern life takes place on screen. Life in industrialized countries is increasingly lived under constant video surveillance from cameras on buses and shopping malls, on highways and bridges, and next to ATM machines. More and more people are looking back, using devices ranging from traditional cameras to camcorders and Webcams. At the same time, work and leisure are increasingly centred on visual media, from computers to *Digital Video Disk*. Human experience is now more visual and visualized than ever before from satellite images to medical images of the inside of the human body. In the era of visual screens, the human perspective is very important. For most people in the United States, life is mediated through television and, to a lesser extent, films.

While print culture will certainly not disappear, the fascination with visuals and their effects that marked modernism has given rise to culture *postmodern* the most *postmodern* if it is visual. These visual developments have made film and television entertainment the United States' second largest export after aerospace, which reached $3.7 billion to Europe alone in 1992 (Barber 1995:90). Of course, *postmodernism is* not just a visual experience. In what Arjun Appadurai calls the "complex, overlapping, and discontinuous order" of postmodernism, neatness is not expected (Appadurai 1990:328). Neatness also cannot be found in the past, whether we look at the public culture of eighteenth-century coffeehouses celebrated by *Jurgen Habermas*, or the newspaper print

capitalism and nineteenth-century publishing described by *Benedict Anderson*. In the same way that these authors highlight certain characteristics of a period as a means of analysing it, despite a wide range of alternatives, visual culture is a tactic for studying the genealogy, definition, and function of postmodern everyday life from the point of view of consumers, not producers.

Critics in disciplines including art history, film, media studies, and sociology have begun to describe this emerging field as visual culture. Visual culture is concerned with visual events in which consumers in an interface with visual technology seek information, meaning, or pleasure. What is meant by visual technology is any form of equipment designed for viewing or to enhance natural vision, from oil paintings to television and the Internet. From the background behind the existing culture, the digital divide is a crucial issue in the adoption of AI technology in today's sectors of society, especially in the creative industries. Limited access to AI hardware, software and training can hinder inclusivity in the creative world. Underserved community groups, such as individuals in rural areas or from economically weak backgrounds, often do not have adequate access to keep up with these technological developments. (Mirzoeff, 1999)

Quoting an article in *Kompasiana*, 22 October 2024, stating that the digital divide includes differences in access to digital technology, including AI, between groups who have the resources and knowledge to make optimal use of it and those who do not. This difference is not only in physical access to technological devices, but also in the ability to understand, access and utilize the technology. Disparities in technology access can exacerbate socio-economic inequalities by creating a 'skills gap' between groups who have access to AI technology and those who do not. Therefore, it is important to provide affordable devices, training programs, and supporting resources to underserved communities. Government initiatives, educational organizations, and technology companies must work together to overcome this challenge. For example, universities could offer free or subsidized online courses on AI and prompt writing. AI platforms can create more accessible versions for users with technological or financial limitations. By bridging the digital divide, we can ensure that the creative industries become more inclusive, equitable and innovative. For example, the 'Skill Our Future' program launched by UNDP (www.undp, 28 March 2024) aims to democratize access to digital and AI skills for young people, including those from underserved communities. This program targets 2 million youth throughout Asia Pacific in 2023- 2026. Thus, collaboration between various stakeholders is key in overcoming the digital divide and ensuring equitable adoption of AI in the creative industry.

D. Educational Implications.

Design education must adapt to prepare students for the AI era, emphasizing new skills such as rapid engineering, AI literacy, and ethical considerations. Effective teaching methods must combine hands-on experiences with AI tools, collaborative projects, and critical thinking exercises to encourage creative and responsible use of AI. Design education faces significant challenges in adapting to the rapid development of artificial intelligence (AI) technology. Traditional Visual Communication Design (DKV) curricula often do not include new skills such as engineering prompt (prompt engineering), AI literacy, and understanding ethics in the use of AI technology. As a result, DKV graduates may not have the relevant skills to meet the needs of modern industry. According to the article 'Today's Literacy Education and the Presence of AI' in *Indonesiana* (www.indonesiana, 21 August 2023), the presence of AI in various digital platforms expands and complicates the discourse on literacy. Artificial intelligence was first defined as 'the science and technique of making intelligent machines' in 1956. However, its application in design education still requires significant adaptation. In addition, the study entitled 'Conceptualizing AI Literacy: Education and Policy Initiatives for a Future-Ready Society' (www.theacademic, 8 May 2024) emphasizes the important role of AI literacy in overcoming challenges and exploiting the opportunities offered by AI in various fields, including education.

To bridge this gap, educational institutions are advised to (1) **Providing Hands-On Experience with AI Technology, where** students must have access to AI tools and software to understand its application in the creative process. (2) **Develop Collaborative Projects, with purpose** Cross-disciplinary collaboration in the use of AI can help students understand the applications of this technology in various contexts. (3) **Practicing Critical Thinking, meaning** students need to be trained to evaluate the results produced by AI, understand potential biases, and develop creative solutions that utilize this technology responsibly. Additionally, partnerships between educational institutions and industry can provide hands-on training and internship programs that prepare students for the challenges of an AI-based world of work. These steps will ensure that design education can produce creative and responsible innovators in the AI era. For example, the 2024 Visual Communication Design Curriculum at the Bandung Institute of Technology has included courses such as 'Data Literacy and Artificial Intelligence' (www.six.itb.ac.id) to equip students with relevant skills in the digital era. Thus, curriculum revisions that integrate AI literacy and related skills are crucial to ensure DKV graduates are ready to face challenges and take advantage of opportunities offered by developments in AI technology.

E. Ethical Considerations.

This study underscores the importance of developing ethical guidelines for AI in design, addressing issues such as bias, transparency, and accountability. Designers must be equipped with the knowledge and tools to identify and mitigate potential ethical risks associated with content AI generated. The use of artificial intelligence (AI) in creative design presents significant ethical challenges, particularly regarding algorithm bias, transparency, and accountability. The following is the theoretical basis and expert opinions regarding these issues: (1) Algorithmic Bias, where AI Algorithms can reflect biases that exist in training data, which has the potential to produce discriminatory or stereotypical content. This happens because the data used may contain historical bias or be unrepresentative. According to an article in PuskoMedia Indonesia (www.puskomedia, 23 December 2019), 'AI has the potential to reflect human biases inherent in its training data. If not prevented, these biases can lead to unfair or discriminatory outcomes.'(2) Transparency, as a lack of transparency in how AI algorithms work can lead to distrust and potential misuse of the technology. Transparency enables a clear understanding of how decisions are made by AI. IBM (www.ibm) emphasizes that transparency is one of the main ethical issues in AI, which includes clarity and openness in the decision-making process by AI systems. (3) Accountability, namely assigning responsibility for decisions made by AI is a complex ethical challenge. When an AI makes an adverse decision, it is difficult to determine who should be responsible—the developer, the user, or the AI itself. An article on ajianaz.dev (www.ajianaz.dev, 18 June 2024) states, 'When AI makes decisions, it becomes difficult to determine who is responsible if an error or loss occurs.' To overcome these challenges, it is necessary to develop clear ethical guidelines and standards in the creative industries. Education also plays an important role in equipping designers with the knowledge and tools to understand and mitigate ethical risks. Specific training on AI ethics, including discussions of real cases and simulations, can help practitioners practice ethical judgment. Thus, integrating ethical considerations into design practice will protect the integrity of the profession and encourage the responsible and sustainable use of AI. Considering expert perspectives and existing literature, it is important for AI designers and developers to proactively identify and address ethical challenges in their work, ensuring that the resulting technology is fair, transparent, and accountable.

Conclusion

A. This study demonstrates that text-based prompts serve as a primary catalyst in transforming creative processes in the field of visual communication design, both in education and professional settings.
B. The emergence of new skills, such as "prompt engineering," has reshaped

thinking and working practices within the design industry. This shift requires academia to promptly adapt design curricula to align with current technological demands.

C. Mastery of prompt-related skills not only enhances the efficiency of creative processes but also opens new insights into the impact of AI technology on visual communication design practices, including interdisciplinary collaboration and the exploration of more innovative creative methods.

D. Professions in the field of Visual Communication Design, such as designers, illustrators, and animators, who can effectively utilize AI prompts, will gain a competitive edge and long-term relevance in an increasingly technology-driven industry.

E. This study identifies a gap between the needs of the creative industry and current design curricula, serving as a foundation for developing more relevant educational programs. Universities need to incorporate AI skills and technology ethics into their curricula to produce competent graduates prepared to face future challenges.

F. In addition to offering practical implications for education and professional practice, these findings provide a significant contribution to the literature on AI integration in creative design. This study also serves as a starting point for further research exploring ethical considerations, accessibility, and the sustainability of AI technology in the field of visual communication design.

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