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Exploring the Potential Impact of AI on the Role of Graphic Content Creators: Benefits, Challenges, and Collaborative Opportunities

Main Subject Area: *Informatics*

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Abstract

Artificial intelligence has been around for a long time but has during the last years had a fast and rapid advancement. It has affected all different works and fields but in this thesis, the focus was on the implementation of AI in the world of graphic design. The thesis aimed to get insight and a deepened understanding of how AI may affect the industry of graphic design.

What benefits and drawbacks does AI have and how can it best be utilised in the way of work? There is some limited previous research, but that talks more of AI as a whole and not specifically into graphic design. Graphic design together with the constant development of AI and technology makes it possible to write about the gap of AI's influence in graphic design. The body of the study was formed to contain previous research and interviews with professionals working in graphic design. The previous research was mainly about the role AI has today as well as what attitude professionals have towards a possible era of AI. The interviews were semi-structured with open-ended questions, to ensure rich qualitative data. The research questions were formulated to obtain predictions and thoughts about the future of graphic design in relation to AI. Due to the nature of the research questions, a qualitative approach using semi-structured interviews was employed to obtain meaningful and in-depth insights.

The strength of the research method lay in selecting knowledgeable and engaged participants who possessed an understanding of the subject matter and a genuine interest in the industry's future. Through the semi-structured interviews, researchers were able to delve into participants' perspectives, prompting them to provide thoughtful predictions, aspirations, and concerns regarding the evolution of AI in graphic design.

In the results, the interviewees were analysed to see similarities as well as differences in the answers and this was usable in answering the purpose of the thesis. From the result created, a discussion was made to get an overview of the answers that were of importance for answering the research questions. In the discussion, the references from the Theoretical framework will also be included to keep the red thread throughout the project.

The findings shed light on various key themes and trends within the field, highlighting potential opportunities and challenges that may arise as AI continues to advance. By delving into the participants' perceptions and expert knowledge, this study contributes to a comprehensive understanding of the potential impact of AI on graphic design.

Ultimately, this research offers valuable insights into the ways in which AI is anticipated to shape the future of graphic design, providing a foundation for further exploration and informing industry professionals, researchers, and educators about the potential implications and opportunities that lie ahead.

Keywords:
Artificial intelligence (AI), Informatics, Graphic design, Digital design, Creative industry, Workflow

1.   Introduction

Artificial Intelligence (AI) has been increasingly utilised in various environments, and its rapid development has transformed industrial models and positively impacted human lives (Zheng, 2022). The demand for AI products and services has grown exponentially in recent years, with the US market revenue increasing from 5 to 22.6 billion US dollars between 2015 and 2020 (Fanti, Guarascio, & Moggi, 2022), highlighting the widespread impact and potential of AI in today's society. This bachelor's thesis aims to explore and deepen the understanding of how AI can affect the role of graphic content creators. AI technology is rapidly gaining momentum in the field of graphic design and other sectors of visual communication, and designers must harness its potential to enhance their work and remain competitive (Zheng, 2022).

However, there are concerns that the increasing use of AI in the industry may lead to job losses and a loss of creative control. Some designers fear that AI-generated designs may lack the uniqueness and intricacy that human creativity provides (Engawi, Gere, Richards, 2020). Therefore, this thesis aims to examine the potential benefits and drawbacks of incorporating AI into graphic design and to analyse the ways in which designers can best leverage this technology to enhance their work.

1.1 Keywords

1.1.1 Graphic design definition

Graphic design and content creation have become everyday life for people. Humans are in today's world constantly in contact with graphic design. Digital technologies, applications, platforms, and the usage of the internet, make it impossible not to get in contact with it. (Jacobsen, 2022). Everything that humans come in contact with, from looking at their phone and seeing applications, to going into H&M to shop for clothes, to advertisements that you see on a billboard on the highway is created with graphic design.

Graphic design is defined as the art of creating content visually, which communicates to an audience. Visualisation is arguably one of the most powerful arts of communication and due to the fast digitalisation, it's causing a paradigm shift in visual science communication. (Ynnerman, Löwgren, Tibell, 2018). The goal of graphic design is to convey a message that elicits a specific emotion from an audience. To convey that message and emotion visual components like colours, typography, images, and other graphic elements are included. Together they create a visual composition for a variety of applications such as logos, advertisements, websites, publications, and others.

1.1.2 Artificial intelligence definition

Artificial intelligence, often called AI, is about computer programs that can perform tasks that would generally need a human touch and intelligence. The tasks can be everything from audio, images, and pattern recognition to problem-solving, and decision-making (Toumi, 2023). The purpose of it is for machines to execute these activities as accurately and efficiently as humans.

AI has been around for a long time, even if it recently has picked up pace and is being developed quicker than ever. It was first introduced in 1956, which back then talked about machines' possibility to recreate and learn from humans (Zhang, Lu 2021).

But for AI to be as efficient and accurate as it is today, it needs to depend on a range of technologies and techniques. These are algorithm recognition, national language processing, machine learning, computing, and computing vision. Together these techniques make computers able to reason, learn and act as humans do (Zhang, Lu 2021).

1.1.3 What's the creative process

For this thesis to be able to define and predict AI's future role in graphic content creation it needs to define what is a creative process. AI's future role in graphic design most likely lies within the creative process. The creative process can be described as a series of stages or steps that an individual goes through in order to develop and produce a creative work. These stages may vary depending on the type of creative work being produced, but they generally involve several common elements, such as preparation, incubation, illumination, and verification. (Saris, 2019). In the preparation stage, the individual gathers information and resources that are necessary for the creative work. This may involve researching, brainstorming, and gathering inspiration from various sources. In the incubation stage, the individual takes a break from actively working on the creative work and allows the ideas to develop subconsciously. This stage may involve activities such as taking a walk, listening to music, or engaging in other forms of relaxation. (Tsenn, Atilola, McAdams, Linsey, 2014). In the illumination stage, the individual experiences a moment of insight or inspiration that leads to a breakthrough in the creative work. This may involve a sudden realisation, a new perspective, or a unique idea that helps to move the creative work forward. In the verification stage, the individual evaluates and refines the creative work to ensure that it meets their standards and is ready for public consumption. This may involve editing, refining, and receiving feedback from others in order to improve the final product.

Overall, the creative process is a complex and iterative process that involves a combination of conscious and subconscious thinking, as well as collaboration and refinement, in order to produce a work that is original, meaningful, and impactful (Saris, 2019).

1.2 Problem Statement

According to recent developments, the next generation is rapidly progressing toward the era of AI, with the goal of achieving a higher level of comfort, convenience, connection, and intelligence. (Shi, Dong, He, Sun, Zhu, Zhang, Lee, 2020) You can see AI's impact on a lot of different workplaces. Everything from mechanisms to medicine to graphic design (Toumi, 2021). When it comes to the future of graphic content creators it seems to be a bit unclear.

Prior experiences demonstrate that innovations, such as digital platforms and automation, have previously changed the fundamental nature of work. The digital era created fresh demands, which required novel methods of working. With the advancement of mobile technology, the use of mobile devices surged in comparison to desktop computers. This posed a more complex design process from a developer's standpoint. Since mobile devices come in different platforms and screen sizes, it was essential to design for multiple platforms effectively while ensuring usability. (Grady & Hare, 2008) In a fast-paced industry where quality and speed are crucial, incorporating AI in design could be a viable solution to meet user requirements. Through the research of previous work and semi-structured interviews, the goal is to get more insight into the benefits and downsides of AI in the graphic content creation world and to also get a hint of what it's going to lead to in the future.

The main source of information that will be gathered is going to be by having interviews with people working in the production of graphic content. They will be the foundation of the results of the thesis. Because of the constant and fast evolution of AI (Toumi, 2021), much research must be made to be up to date and to get a base for the interviews.

Almost every aspect of social life has undergone substantial computerisation in the modern era. The advancement of information and communication technologies has been impacted by their continuing development which has led to an increase in graphic content creation. (Chemerys, Osadcha, Osadchyi, Kruhlyk, 2019) technology and AI are under constant development and because of that, there are a lot of undiscovered gaps. Although AI can produce visuals using pre-existing datasets, it's still challenging for AI to independently come up with truly novel or creative ideas. As a result, there is a research void in the area of using AI to supplement human creativity and give designers new tools to boost their creativity and efficiency.

The reason to further conduct empirical studies on the influence of AI on the field of graphic design goes far beyond the specific field. Automatisation and digitalising certain practices are not unheard of in different and similar industries. As previously discussed a good example of this is the introduction of mobile devices rather than desktops as the main screen size for development and design. (Grady & Hare, 2008) However, the future of the graphic design industry and the reaction to AI incorporation in the field is yet unexplored. That is why there is value in collecting educated predictions and expanding the knowledge regarding the future of the field "Graphic design" in regard to the incorporation of AI.

1.3 Purpose and Research Questions

The purpose of this research is to investigate the impact of AI-generated content on the role of graphic designers and the visual design industry as a whole. This study aims to explore the potential benefits and drawbacks of using AI-generated content in design work, the challenges that may arise in integrating AI-generated content with traditional design processes as well as the potential impact of AI on employment and the job market for graphic designers.

Overall, the goal of this research is to provide valuable insights and recommendations to help designers and design organisations navigate the opportunities and challenges posed by AI-generated content, while also emphasising the continued relevance and importance of human creativity in the design process.

Research Questions

How can graphic content creators best utilise AI to enhance their creative output and streamline their workflows, and how do they think designers can optimise their use of this technology to enrich the design process and offer unique and engaging visual content?

What does the industry think are the potential benefits and drawbacks of incorporating AI into the field of graphic design?

1.4 Scope and Limitations

This thesis will be covering graphic generating AI's influence on graphic designers and the industry of graphic production. This entails visual graphic creation, motion graphics and branding. This furthermore entails that the thesis will not cover AI's influence on copywriting, videography, sound design, advertising, art, photography and other related fields.

Even though this thesis aims to make a general statement for the entire field of graphic creation the interviews are based in and around central Sweden which presents the risk of the conclusion being geographically biassed. The field, understanding and incorporation of AI might be further or less established depending on your location.

1.5 Disposition

This report aims to investigate the future impact of AI on the industry of graphic content creation, and it will be structured around a series of interviews with industry experts. Initially, the report will outline the methods used to gather and analyse the data.

The interviews will be analysed and broken down into segments that represent industry opinions and thoughts regarding the future of AI in the graphic content creation business. The results of the interviews will be thoroughly analysed and presented in the final part of the report.

This analysis will include a conclusion that summarises the results, highlights important trends, and offers insights into the future of AI in graphic content creation. The conclusion will be formed from the data gathered in the interviews and will present a nuanced and informed view of the future of AI in the graphic creation industry.

Overall, this report seeks to provide a thorough and comprehensive analysis of the impact of AI on the graphic content creation industry and to offer insight into the ways in which AI can be leveraged by designers to improve and streamline their work, as well as the potential challenges that may arise as a result of this technology.

2.   Theoretical Framework

In the theoretical framework, there is going to be an overview of previous work on AI's influence on graphic designers as well as an insight if there are any previous shifts that can be compared to the revolution of AI. Four different AI software will also be introduced since these are going to be implemented through the conducted interviews. A brief introduction of them and how they work with AI. The theoretical framework will be a scientific foundation which will help with creating a red thread throughout the project as well as creating the link between the theory and research questions. The theoretical framework will be talked about in the discussion part to see if the previous work has similarities to today's graphic designers.

2.1 AI's Role in graphic design today

AI has been around for a long time but has during the last years developed and gained a big hype. As of 2020, the state of AI's impact on graphic design is still uncertain. A lot of questions regarding job loss and lack of human creativity are heavily discussed. The study "The Impact of Artificial Intelligence on Graphic Design: Exploring the Challenges and Possibilities of AI-Driven Autonomous Branding" investigates the potential impact of AI on graphic designers, including issues related to ethics, cultural acceptance, and creativity. This study used speculative co-design methodology through semi-structured interviews and co-design workshops to initiate discussions and debates. The findings suggest the entanglement of human-machine interactions around self-driven AI brands. These findings provide designers and researchers with new opportunities to explore the possibilities of AI in graphic design. (Engawi, Gere, and Richards, 2020)

From previous research about the implementation of AI in the design industry, most research has shown how AI helps with streamlining the work. Experts suggest that AI is more of a catalyst that will strengthen human creativity. But as well, you need to work together with it and not avoid what's coming (Antonio Bertão, Yeoun, and Joo, 2023). At the same time with the development that AI and technology have today, professionals in various fields of design point out that AI is a point of no return. But they also recognise that with the rapid development, things will and are still getting better and evolving which will lead to a fulfilment of the creative expectations (Girling, 2016). AI fails in some dimensions like creativity (Antonio Bertão, Yeoun, and Joo, 2023), but has the potential to ease many other tasks that are perceived to be repetitive and tedious (Pfeiffer Consulting, 2018).

2.2 Attitudes Towards AI

Previous research made through Adobe shows what knowledge and attitude 75 professional graphic designer employees have of AI. Most people from the study aren't scared that AI and robots will steal their jobs, but instead talk about how it will hopefully make their way of work into a more efficient way. Through the study, it shows that the participants think that AI will get a bigger role and be more important for creative professionals. It should also be pointed out that some of the participants stated that they think AI could affect parts of their way of work. When introducing the AI software Adobe Sensei, relatively few people actually knew about it, but thought that it would help them be more efficient and productive. However, when they got the question about if it would help make them more creative, the answers were quite mixed. One important aspect was that most people weren't afraid of AI and machines taking over their jobs, but instead, they thought that it could include a lot of homogeneities in graphic designs and work (Pfeiffer Consulting, 2018).

2.3 Digitalisation and Previous reformations

Reformations and revolutions within the field of content creation are nothing new, throughout the history of the industry we have encountered upgrades and updates to software, hardware and ways of working. The introduction of computers in the 80s and 90s completely reconstructed our definition of efficiency, the introduction of digital cameras made photography accessible to everybody. These are all things that threaten jobs, lifestyles and "old" ways of working (Mollerna, 2008). These examples are not outliers, they are a continuing reformation, our cameras get better, our software receives updates and we constantly adapt to these new innovations and digitalization of our previous ways. (Cazan, 2020)

Digitalisation has been a topic of the industry ever since digital tools were introduced, even if a lot of jobs and tasks have already gone through digitalisation and automation. There's still a threat of more people having to adapt to their jobs going through digitalisation, according to OECD (2019) nearly 14% of the current jobs could be automated, and 32% of employees need to learn new skills to do their jobs, major changes are needed to succeed in the new digitally enabled work environment. (Cazan, 2020)

2.4 Four AI software in graphic design

The interviewees are exposed to four different AI programs that in one or more ways touch upon graphic creation. These software will range from invisible AI that only works to quicken the projects and activities of a graphic creator as well as programs that claim to complete entire tasks for you. The four software the interviewees will be testing are Adobe Sensei, Adobe Firefly, DALL-E 2 and Brandmark.io.

Adobe Sensei
Adobe Sensei is an AI and machine learning framework developed by Adobe Systems, which is designed to power various Adobe Creative Cloud applications and services. Adobe Sensei leverages AI and machine learning algorithms to automate and improve the productivity of various Adobe Creative Cloud tools, making it easier and faster for users to create, design, and deliver digital content.

Adobe Sensei is integrated into a range of Adobe products, including Photoshop, Illustrator, Premiere Pro, After Effects, and more. The technology is used for various purposes, such as automating mundane tasks, generating insights from data, improving search and discovery, and enhancing the user experience. Some examples of Adobe Sensei features include automated image tagging, auto colour correction, and intelligent cropping. Overall, Adobe Sensei aims to provide users with enhanced creativity, speed, and efficiency in their workflow by leveraging the power of AI and machine learning.

DALL-E 2
DALL-E 2 is an AI-powered image generation program developed by OpenAI. The name "DALL-E 2" is a reference to the surrealist artist Salvador Dali and the character WALL-E from the Pixar movie of the same name. DALL-E 2 uses a combination of deep learning, natural language processing, and computer vision to create unique images from textual descriptions. It was trained on a large dataset of images and textual descriptions and can generate a wide range of images based on user inputs, including objects, animals, and scenes that don't exist in the real world.

For example, a user can input a textual description such as "a snail made of harp strings" and DALL-E 2 will generate an original image of a snail made of harp strings. The program can also generate images of objects and scenes that are composed of multiple objects, such as a tree made of musical instruments and an apple made of stone. DALL-E 2's capabilities demonstrate the potential of generative AI to create new and unique content.

Adobe Firefly
Firefly is a bot developed by Adobe that allows users to send prompts in the chat, which the bot then uses to generate a graphic. While similar to DALL-E 2 in some ways, Adobe Firefly provides unique

features and capabilities that are relevant for the research on the use of AI in the graphic design industry. Those features include typography treatments and different design modes such as "art", "photography" or "graphic"

Brandmark.io

Brandmark.io is an online platform that uses AI technology to generate custom logos and branding materials for businesses and individuals. The platform was founded in 2017 and has since gained popularity as an affordable and efficient way to create professional-quality designs.

Brandmark.io's logo maker uses machine learning algorithms to incorporate the user's design preferences, industry, and company name when generating unique logo concepts. The user can then customise their preferred design by adjusting the colour, font, and layout options. Brandmark.io also offers other branding materials, such as business cards and social media graphics, that can be customised to match the user's logo. One of the unique aspects of Brandmark.io is its affordable pricing model. Instead of paying a high flat rate for a custom design from a human designer, users can pay a much lower fee for a custom AI-generated design.

3.   Method and implementation

The method and implementation chapter provides an outline of how to collect the data to in the end answer the research questions. A lot of research will be done at the beginning and once that is done, the data will be collected from qualitative interviews made with professionals in the working environment of graphic design. The interviews will be semi-structured with a couple of questions, but that encourages a free mind and invites speculation and ideas outside of the already made questions. This will lead to more detailed and rich data, however, which will also be harder to analyse (Creswell & Creswell, 2018).

3.1 Data Collection

The research data was collected through in-depth interviews and AI software testing with professionals in the graphic design industry. The interviews aimed to be respectful towards the interviewees and their environment. They were hosted either online via Google Meet or on-site at their offices. Carrying the interviews in a respectful manner and closely documenting all answers by transcribing the recorded interviews accurately are both processes recommended by (Creswell, 2014) in order to produce trustworthy and ethical research.

The interviews were held in two parts, one demonstration part where the interviewer was going through four different software to make sure that the interviewees had knowledge of what this research aimed its study at. Content generating AIs. The demonstration featured four different AI software tools that do just this, generate content. The four software tools were: Adobe Sensei, DALL-E 2, Adobe Firefly, and Brandmark.io. Each software was presented for its particular relevance and significance to the graphic design field.

Adobe Sensei is a software developed by Adobe that operates in the background during certain actions within Adobe programs. Some examples of such actions include utilising the smart selection tool in Photoshop or the Image Trace feature in Illustrator, both of which utilise Adobe's AI technology.

DALL-E 2, developed by OpenAI, is an example of how AI can be used to generate graphics from prompts e.g. Robin Hood drawn in the art style of Marvel. This technology has the potential to impact the graphic design industry, as it can assist graphic content creators in generating visual content quickly and efficiently.

Firefly is a bot developed by Adobe that allows users to send prompts in the chat, which the bot then uses to generate a graphic. While similar to DALL-E 2 in some ways, Adobe Firefly provides unique features and capabilities that are relevant for the research on the use of AI in the graphic design industry. Those features include typography treatments and different design modes such as "art", "photography" or "graphic"

Brandmark.io is an online logo and branding generator that lets users create simple logotypes without prior experience. It works by prompting users to input their brand name, slogan, keywords, business type, and colour preferences, which the AI then compiles and generates a complete brand mark and corresponding colour palette.

During interviews with industry experts, the AI software, including Adobe Sensei, DALL-E 2, Adobe Firefly, and Brandmark.io, was presented to allow experts to understand their capabilities in producing artefacts and content with these AI software tools. The objective was to gather insights and data to derive how AI can improve the design process, as well as identify potential challenges and limitations.

3.1.1 Participants

The recruitment of the correct qualified participants was of the greatest importance. They were the base of the data collection, so the selection of people needs to be carefully thought through. Invitations were sent out via email to professionals in the content creation business. In the email, there is a brief explanation of what the participants could expect and some information regarding the topic. They also got the opportunity to have the interviews face-to-face or over the Internet. As the thesis is narrowed down to just parts of the graphic design industry it was important to also attract the right qualified person. The participants were located in Sweden, which makes the study to be limited to a quite small area. The ambition was to recruit people of different genders as well as different work experiences in the field of content creation. The people that were recruited were going to be in the content creation section. It was also great if they had a previous understanding of AI and how they implement and use it on a daily basis.

3.1.2 Semi-structured Interviews

Qualitative interviews that are semi-structured were conducted to be able to answer the research questions that have been formed. Qualitative research interviews are a powerful tool that helped to gather data (McGrath, Palmgren, Liljedahl 2018) that showed the impact AI has in the graphic content world. It was open-ended interviews to obtain as much information from the participants as possible. There were a couple of questions that were asked, but the interviewees were able to go outside the questions and talk around them and were also encouraged to do so (Creswell & Creswell, 2018). They were the ones that sat on the information regarding the implementation of AI and talking outside of the questions was encouraged. Having open-ended questions which were semi-structured let the experts in the field be able to explain more in-depth what thoughts they had towards AI. As a result, it provided more detailed and richer data but was also causing the analysis to become more challenging (Baxter, Courage, Caine. 2015).

As the focus of this research was to investigate the impact of AI on the creative process, it was important to ensure that participants were given the opportunity to reflect on their experiences in a clear and respectful manner. To achieve this, test interviews with peers and colleagues were conducted and this provided an opportunity to assess language, question clarity, and active listening skills, all essential components of a successful qualitative research interview. (McGrath, Palmgren, Liljedahl 2018) Based on the theoretical framework, a qualitative study using open-ended interviews was conducted to gather the views and experiences of participants regarding the impact of AI on graphic design. Importantly, the thesis followed the (American Psychological Association. 2019) guidelines to avoid bias in the questions that could influence participants' responses.

3.1.3 Interview Questions

In order to conduct a well-organised and effective semi-structured interview, the questions were prepared to ensure the relevance of the conversation to the topic. These questions aimed to be a pleasant experience for both the interviewer and the interviewee. The respondent was encouraged to elaborate on their answers by explaining their reasoning and providing specific details related to their answers. An extensive deep-dive into the interview guidelines can be found under 8.1 "Appendix 1." The following fourteen questions strived to gather data from interviewees and ultimately gather data that could be derived to conclude the 2 present research questions:

1. How can graphic content creators best utilise AI to enhance their creative output and streamline their workflows, and how do they think designers can optimise their use of this technology to enrich the design process and offer unique and engaging visual content?

2. What does the industry think are the potential benefits and drawbacks of incorporating AI into the field of graphic design?

3.2 Data Analysis

This mode of data collection and data analysis is referred to as a qualitative method. The primary qualities of a qualitative research method are e.g. trying to understand complex phenomena such as human behaviour and experiences. In this thesis case, trying to grasp human predictions and feelings towards an ever-changing playing field and how AI will form its role within that playing field.

The thematic analysis method was selected for this thesis due to its suitability for analysing qualitative data collected through interviews. This approach allows for a deep exploration of the themes and patterns present in the data, which aligns well with the research questions focused on the potential benefits and drawbacks of AI integration in graphic design.

By utilising the method of thematic analysis, the aim was to gain a nuanced understanding of how the field thinks AI will impact the creative process and the role of designers in collaborating with machines. Additionally, the thematic analysis method offers a flexible and adaptable approach that could be adjusted to fit the specific research questions and data collected as stated by (Braun, Clarke, 2006). Overall, this method is well-suited for exploring complex and multifaceted topics and allows for a comprehensive analysis of the data collected in this research.

3.3 Validity and Reliability

When conducting research, producing a thesis that is trustworthy, authentic, and credible is critical. In order to achieve this, this thesis follows the strategies recommended by (Creswell, 2014). One of the key recommendations is to provide a clear and transparent description of the research method, interview setting, and relevant circumstances. This involves documenting all the steps taken during the data collection process so that anyone reading the thesis can fully understand how the data was obtained.

Another useful technique that Creswell recommends is member checking. This technique involves allowing participants to review and validate the interpretation of their statements to ensure that the findings are accurate. By engaging with participants in this way, it can help to build trust and credibility, as well as provide an opportunity to identify and address any misunderstandings or errors. It is also important to reflect on any possible researcher bias that may have influenced the study's findings. This can include biases related to cultural, socioeconomic, or background influences. Acknowledging these biases and addressing them in the research, it can help to ensure that the thesis is trustworthy and authentic.

In summary, following Creswell's recommended strategies for producing a trustworthy, authentic, and credible thesis can help to ensure that your research is of the highest quality. By documenting your research process, engaging with participants in a respectful and ethical manner, and presenting your findings in an unbiased and straightforward way, you can produce a thesis that is not only informative but also trustworthy and valuable.

3.4 Considerations

There are a couple of considerations that need to be addressed when it comes to the thesis. These considerations will be relevant throughout the process of the work, to receive a better overview of what needs to be considered and looked upon.

3.4.1 Ethical considerations

Ethical considerations should also be anticipated and reflected upon throughout the research process. It's important to consider ethical issues such as informed consent, confidentiality, and the potential risks and benefits of the research. By carefully considering these issues, researchers can ensure that their work is not only credible and trustworthy but also ethical and responsible (Creswell 2014).

During the data collection phase, building trust with participants is essential. This involves showing respect for both the participant and their environment, explaining the purpose of the study, and defining any terms that may be unfamiliar. Researchers should also reassure participants that there are no right or wrong answers and that their opinions and perspectives are valuable.

Finally, in the analysis and reporting phase, it is important to maintain privacy and anonymity, while presenting all perspectives and contradictory findings in an unbiased manner. This means reporting any negative or discrepant information clearly and straightforwardly, without bias or distortion (Creswell 2014).

3.4.2 Right people and businesses

The outcome and body of the thesis will rely on the interviews of the people working with graphic content. Because of AI's role and constant development in the past years (Chemerys, Osadcha, Osadchyi, Kruhlyk, 2019) the importance of finding the right people to execute this thesis will be of utmost interest. As graphic content creation is a broad and wide subject, it's even more relevant to attract the correct people that are working with graphic creation, motion graphics, and branding. Getting the correct people is crucial for the outcome of the study. To achieve this emails will be sent to thriving companies that claim to produce work within these fields.

3.4.3 Interview method

One consideration is how the interviews will be conducted. To receive and gain the most valuable information the interviews will be semi-structured. There are a couple of prepared questions, but that encourages an open discussion. With that said, the problem with semi-structured interviews is that they might be hard to analyse as well as a lot more time-consuming (Adams, 2015).

4.   Results and Analysis

As previously stated, the purpose of this research was to gain insight into what people working in the content creation field have to say about the development of AI. What impact it has on us and what potential drawbacks and benefits they can draw from it to best utilise it in their work. The analysis of the results could be carried out from the information provided by the semi-structured interviews. The interviews were conducted with professionals in the graphic design profession and even if there were some differences in the responses from the participants, conclusions could clearly be drawn of similarities in their answers. We've conducted 5 interviews following the questions read under 8.1 "Appendix 1", the participants varied in experience and titles as stated in the list below. The complete interviews are found under 8.2 "Appendix 2".

	Title	Working Experience	Nationality	Company
1	Creative Lead, AD	20 Years	Swedish	Full Service Agency
2	Art Director	7 Years	Swedish	Full Service Agency
3	UI Designer, Teacher	15 Years +8 years Teaching	Swedish	Full Service Agency
4	Digital Marketer, Visual Designer	17 Years	Swedish	Marketing Bureau
5	UX/UI Designer	10 Years	Swedish	Full Service Agency

1. How can graphic content creators best utilise AI to enhance their creative output and streamline their workflows, and how do they think designers can optimise their use of this technology to enrich the design process and offer unique and engaging visual content?

2. What does the industry think are the potential benefits and drawbacks of incorporating AI into the field of graphic design?

4.1 Current AI Usage

It is clearly shown through the interviews that most of the participants use the technology of AI similarly. How much time approximately the interviewees spent on a daily basis was different between them all. But what was similar was the type of AI they interact with is mostly already built into different programs. Just as participant five mentioned, that they use AI more than they may think of because of the "invisible AI". You don't really think of it as AI, even if it is. Some participants used it more in programs like Figma which have a couple of built-in commands that are made with AI, while others use it more in Adobe programs that as well has a lot of built AI in it. It should be mentioned that ChatGPT has developed at rapid speed and is said to be a world-changing program (Doshi, Bajaj, Krumholz 2023), is one of the AI programs that all users are familiar with and could use for help in different ways. As interviewee two mentioned that ChatGPT has been a new addition to his toolset, for generating text in kind of a draft.

Most of the participants were familiar with the majority of AI software that was introduced during the interviews. Adobe sensei is one of these "invisible artificial intelligence" that everyone knew about. When it comes to the Adobe Firefly and DALLE-2 where you write in prompts to generate images most of the participants knew about them as well. Since Firefly is a Beta version and just available for a couple of people yet, not all had seen or tested it out. Interviewees one and two mentioned that Midjourney which is a similar program was used to generate photos and inspiration. This was a more developed and better option for DALLE-2.

When it comes to the software Brandmark.io only one of the recipients was familiar with it. A couple of them were interested in it and thought of going through it themself. At the same time, the second interviewee that had interacted with it before wasn't at the moment super impressed with it, but that it would possibly get better and better with time. Similar to how ChatGPT has evolved since the start.

4.2 Implementation

Today it's impossible to hide from the development of AI and that is also something that the interviewees mention. They all more or less explained that with this new phenomenon, you will have to be up-to-date with it if you want to compete with the competitors. There is no way to avoid the expansion of AI, but you have to get yourself familiarised with it. As with other reforms that have happened, some of the participants mentioned a couple of things that were revolutionary back then that AI could have a similar outcome. Interviewee one mentioned similarities in the shift from analogue to digital design and even if that might have been a more significant step the participant guessed this step could be in some cases comparable. Many of the participants think that right now there is a huge hype for software using AI and that people are using it just because it's available. It's new, it's interesting and people want to try out the different tools that it gives you. Just as interviewee

one also mentioned that people always fall in love when new technology appears. People try it out a lot at first and then later on gain clarity and start to ask themself why they use it and what they get from using it.

But once again, the participants think good of AI and you need to think of it as a tool to implement in your daily work. AI will probably give you a clear competitive advantage, with being able to apply new tools that are beneficial. Especially if it helps you to save time and still get a great end result. As one of the participants points out, those who decide to not use and keep up with AI, run a risk of falling behind the competition for customers. You will have to adapt and implement AI in your work.

4.3 "Just a new tool"

A commonality between thoughts and takes gathered in the interviews was the non-fear of the extinction of the role of a graphic designer. We've phased reformations in the way we work as designers before and we will surely phase them again. AI is a new and impressive tool that is being introduced to the field and will soon become common practice, is the shared thoughts of graphic designers in the field. But with that said AI is just that, just a new tool. In the end, it's not about what routes we take to get to our end product, it's about the idea and the quality of our finished product. The professionals in the field do not seem the slightest concerned about AI replacing their roles as designers but rather excited about the introduction of a new and fast tool, similar to when the computer was introduced or every time the Adobe Suite gets more qualified.

4.4 Homogeneity

A common scare when talking about the future of AI in the field of graphic design is the gathered threat of homogeneity, with content-generating AI tools becoming more and more accessible to the average Joe without design experience. As this happens at a fast pace we run the risk of designs becoming more and more homogenous. As the industry sees it right now they think that AI as it is used right now is a mere trend hopped on by graphic designers, but if this becomes so accessible that everybody can produce artefacts that they deem good enough we can predict a future where a lot of designs will have the same "creator" and designs that are based on to similar prompts. To take this to the extreme one of the interviewees jokingly said that the most dystopian scenario for AI in graphic design is a world where all designs look the same.

When talking about homogeneity and the threat around it one of the interviewees said that this isn't the first time we've faced this threat and therefore this shouldn't come as a shock to us. The example the interviewee used was the introduction of Word-Press and Word-Press themes, he said "WordPress and especially WordPress themes is a huge timesaver for small scale projects but it's also an easy way for "anybody" to create a webpage. And therefore, suddenly, half of the web looked the same." He goes on to talk about how he is not really worried about the threat of homogeneity to the same extent with AI as WordPress but emphasises that it is still a risk that designers should be aware of.

The subjects from the industry dabble in thoughts about the valuation of work and the risk of people might not needing the service of graphic designers in the future if the tool would end up being so simple that you would not need to contact a bureau for your new identity or never again having to use

a strict copywriter. They state that you might run the risk of creating a world where everything is designed from the same point of view, everybody neglecting the bureaus and doing it their own way, therefore becoming very homogeneous.

4.5 Inspiration and Iteration

When covering the topic of how and when to use AI in their working life the participants covered a lot of different areas and times where AI can be useful but one aspect that was collectively agreed upon was inspiration. One of the interviewees goes into depth about how they use AI for name generation and inspiration for naming branding projects, companies or even functions within apps they are currently constructing. One other interviewee talks about how different people go about finding inspiration for designing projects in general and how AI can be a speedy way to gather quick starting points. Quote "Today, you might have had other ways to start, like browsing Pinterest or taking a walk around the lake. Everyone has different ways of getting inspiration, and I think that's where AI can play a big role. It can quickly generate different options that you can then work with."

One big commonality found in plenty of the interviews was the expression of gratitude towards the possibility to iterate projects in an early stage with AI that generates content. Whether this was in text or actual graphics the positive attitude towards it stood. Being able to pitch an idea to clients with a lot of different iterations of a design almost initially, and that way get a sense of what direction a client wants to take a project. One of the interviewees expressed a slight concern with this due to AI becoming exponentially greater and therefore having to further evolve the finished product to exceed the expectations from the first pitch AI-generated iterations.

4.6 Streamlining Workflows

The participants emphasised the significant benefits of AI, particularly in terms of enhancing efficiency within their workflow and streamlining processes. That is also what they think will be the best scenario of AI in the graphic design world. Helping the experts with decreasing the time spent on a couple of things, will give them more time to spend on other different parts to make the end result even better. Interviewee five mentions the rapid development of ChatGPT and brings up that who says that it won't be the same with similar AI software that makes graphic content even better. The participants all agree that right now AI like Brandmark.io aren't good enough and that they aren't really scared of AI taking over. Many of the participants noted that the current state of AI is lacking the human touch that makes their own work stand out and evoke a feeling to it. The AI is yet capable enough to create that nice final polish and deliver the whole complete package. Interviewee three mentions that smaller firms and design agencies will probably be the ones that might see some problems occur from the development of AI. They might have smaller businesses that think that the work that different AI software gives them is good enough. They don't need that final polish but feel satisfied with the result that the AI programs give them. Overall the interviewees see AI as something more beneficial than something that might hurt the industry. Having things that improve efficiency will hopefully only make the end result even better.

5.   Discussion

In the discussion part, we will go deeper into the results from the participants and discuss them in relation to the purpose of the research as well as try to answer the research questions that were created earlier in the thesis.

5.1 Result Discussion

Through the interviews and analysis, a reflection and evaluation will be made to compare this study to previous research. With the gathered information from the participants, the aim is to be able to answer the purpose and research questions of the study. The purpose of it is to get an insight into how AI has an impact on people working in the graphic design sector. What can be drawn from implementing it as well as what possible benefits and drawbacks from it is? The research questions go like this:

1. How can graphic content creators best utilise AI to enhance their creative output and streamline their workflows, and how do they think designers can optimise their use of this technology to enrich the design process and offer unique and engaging visual content?

2. What does the industry think are the potential benefits and drawbacks of incorporating AI into the field of graphic design?

Research question 1
The results from the participants point out that graphic designers will have to utilise and implement the development of AI in their way of work. Similar to previous research from the theoretical framework, people think of AI as a tool to streamline their work (Pfeiffer Consulting, 2018). Just as earlier when other reforms have been made people that choose not to implement this run a risk of falling behind competitors. Which makes people who are unsure of AI and don't really want to use it, fall behind. Antonio Bertão, Yeoun, and Joo mentioned in their previous work that you will have to work together with the upcoming AI, but not avoid it, which shows similarities to the conducted interviews we had in this study. There are also different types of implementing it and using it in your everyday work. Softwares like Brandmark.io which was introduced you might not want to implement, but it's necessary to know about them and to realise that everyone can use them. At the moment it seems like these types of operating systems aren't good enough and lack the human touch that makes it have the same standard as a human created. But with the rapid growth of AI, it's not impossible that something similar develops and instead is usable (Zhang, Lu, 2021). Working in an industry where AI has a big impact and easily is implemented, makes it necessary for you to be up-to-date. New technologies occur all the time and it's good to have at least some knowledge about AI and what type of software that are available. When it comes to software like DALLE-2 and Adobe Firefly where you write in prompts and they generate photographs and text some of the participants are using this for different reasons. One mentioned that they used to get inspiration by taking a walk, but now sometimes use different methods like using DALLE-2 to generate ideas.

The already built-in AI in different programs is something that most people use and at the same, it's also hard to avoid. The interviewees were familiar with Adobe Sensei with the type of AI it uses and also mentioned some other software where invisible AI was implemented. Everyone thought well about it and appreciated that it makes your projects and work more efficient. From the reference

Pfeiffer Consulting, the majority of participants didn't know what Adobe Sensei was, while our interviewees knew about it. But the thoughts from both sides were similar, that it's positive and easy to implement as well as making their work more efficient.

So when it comes to AI in the graphical content business, it's important to have some knowledge about it. Implementing it in your daily work will create more efficiency and make you spend less time on some parts because of the help you get from AI, which gives you more time to spend on other parts to receive a better end result. The interviewees weren't afraid of AI taking over their work but instead had a positive attitude towards it. Right now it isn't good enough and doesn't have the nice final touch that we humans have. They are great with inspiration but are lacking the ability to present a whole composed work. Worth mentioning since it has been raised quite a lot during the interviews is the development of ChatGPT. Even though AI hasn't any impact directly on the graphical content sector, many interviewees take it up as a helping tool for them in their way of work.

Research question 2
When it comes to the second research question, what potential benefits and drawbacks AI has when implementing it. The benefits have mostly already been touched upon. When asking the participants about the best possible scenario for incorporating AI into their work they all mention that it will help to make their work more efficient and accurate. If it can polish your work and at the same time decrease the time spent in total from a creative idea to the final project. If it goes faster to get to the finalised product, you are able to spend more time on other parts of the project. So it doesn't mean that the total time spent will be less, but instead, you are able to spend more time on other parts to get it even better.

According to our theoretical framework and the previous studies, especially Cazan's study stating that 14% of current jobs could be automated, we took for granted that there were going to be concerns about job loss and less available creative work. We thought that as AI was getting smarter and smarter people wouldn't get in contact with a design agency but instead will rely on AI to do the job for them instead. But after the constructed interviews no one mentioned that they were afraid of this happening to the creative field of graphic design. Instead, they pointed out that that type of AI right now isn't good enough to create something that would make consumers go in that direction. They lack the human touch, which makes AI's work come across as very homogeneous. Just in the study from Pfeiffer Consulting, the professionals weren't afraid of machines and AI taking their jobs, but instead thought AI could create a lot of homogeneity in work. This shows similarities to previous research from the creative field, and to the results that we achieved. One of the participants in our study mentioned that if people instead will rely on AIs work, everything will get very similar in style and looks. Just as when WordPress was new everyone made their websites from themes in WordPress which made all sites look the same. If AI would take over the design agencies' work, it would probably be a similar outcome as with WordPress. But since none of the interviewees was at the moment afraid of that happening, the jobs of design agencies hopefully aren't in any danger of job loss. One participant did though point out that if it would happen the smaller firms would run a risk of losing jobs and work. Since the smaller companies that need help with building their brand would maybe think "good enough" is ok and therefore go with something free that AI has created.

One thing that is worth pointing out that was brought up is that we are right now with copyright feeding the AI with bad content. This makes us lose ourselves in copyright and who owns an image, text and similar things. This might lead to that no one putting their time, heart and soul into creating remarkable images, or captivating text. You can no longer be certain of who did what and our profession might become watered down.

5.2 Method Discussion

The study's research questions were formulated in a manner that made it unlikely to obtain meaningful quantitative data to answer them. Therefore, a qualitative approach through semi-structured interviews was used. This allowed for an in-depth exploration of participants' predictions and thoughts regarding the future of graphic design in relation to AI. The method's effectiveness relied heavily on selecting knowledgeable and engaged interviewees. This ensured that the interviews produced insightful responses that could be generalised into various predictions and thoughts about the future. The semi-structured interview format allowed for follow-up questions to steer participants towards the desired topics and elicited their honest predictions, hopes, and concerns about the evolution of AI in graphic design.

The semi-structured interviews present a weakness which stems from the human factor included. Data with high quality can be compromised if participants lack the necessary interest or knowledge in the subject itself, leading to divergent predictions and options that could cause the conclusion to be deemed untrustworthy. However, the researcher mitigated this issue by thoughtfully selecting experts who can lend the research high credibility due to their diversity in experience and the fact that they come from different companies with different agendas.

Semi-structured interviews can be a highly valuable tool for researchers seeking to unravel complex phenomena such as future predictions and gather detailed, qualitative data. To extract the full potential of these interviews, the researchers must execute them with great care, from the planning stage, through to participant selection and analysis, to make sure that the data collected is of high quality and reliable. Overall, the research method was successful in achieving the desired outcomes, and the resulting data provided valuable insights into the ways in which way the industry thinks AI is likely to impact the field of graphic design in the future.

6.   Conclusions and Further research

6.1 Conclusions

This study aims to get an insight into the future of the graphic design industry according to the graphic design industry. The design industry today stands before a shift of pace and high demands from clients with both efficiency and standard. Previous studies indicate that AI might be a solution to this and this study sets out to see if the industry agrees with these claims and how the industry thinks that AI will develop its way into graphic design. The thoughts of the industry are that the design industry is becoming increasingly interested in the use of AI for creating graphic content. AI has the ability to speed up and improve the effectiveness of design processes while also giving designers new tools to increase creativity. According to our research, the majority of our participants use AI through native

commands in software like the Adobe Sensei commands in Photoshop. Most of the AI applications discussed in the interviews, including Adobe Sensei, DALLE-2, and Adobe Firefly, were already known to the participants, but their previous usage differed.

The use of AI in the creation of graphic content requires that designers remain updated with the most recent advancements in the industry. Understanding the benefits and limitations of applying AI as a graphic content creator is crucial, it's also important to evaluate the possible impact on the standard and originality of design outputs produced by AI-driven software and applications to make sure that the content holds a certain standard and avoid the risk of everything becoming homogenous.
In conclusion, the industry thinks that using AI to generate graphic content has the potential to transform the industry and improve the productivity and creativity of designers. To secure the greatest results for design outputs and designers, it is necessary to approach AI usage cautiously, taking into account both the benefits and limitations.

6.2 Further Research

In the study and in the interview questions, the participants were able to answer what they think about AI when it comes to universities and if it should be taught. Since it was mentioned that it is necessary to be up to date with AI, is it also an advantage of having it implemented in the school? Some of the participants brought up that it would be good for students to get some knowledge about it because it could give them an advantage in the market. While others mentioned that it's more important to train the students with an understanding of what contra-bad design is. Get knowledge about how to get a good eye for something. That expertise is much more important and central. In addition, it's also mentioned that it's very hard for universities to implement AI in their education. With the technology constantly being developed and updated makes it hard for the school to keep up their education program. Students will get in contact with different AI tools that they can implement and try out. But instead of having an education that is specified towards a future of AI, it could be good to have guest lectures from people working in the graphic design sector, which one of the participants points out. In that way, they will get updated about what different tools are useful in the industry. But that could be another further research, if implementation of AI is necessary in an education and how it should in that case be carried through.

This whole study is a mere prediction of how the future of graphic designers could unfold. However, it is crucial to remember that AI is developed at a rapid pace and it's not unlikely that AI makes a quick turn in how people think of it. The dynamic nature of AI's development could introduce new possibilities and perspectives, reshaping the landscape of graphic design in unforeseen ways.

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8. Appendixes

Below you can see all the different appendices.

8.1 Appendix 1

The initial 4 questions are intended to gather some background information on the participant and see how they are working today.

1. **What's your job title?**

2. **How long have you been in the industry?**

3. **What fields and tasks do you encounter throughout a normal workweek?**

4. **What software do you typically use?**

Questions 5 and 6 are included to gather information on how the interviewees' previous experiences regarding AI are looking. After having the presentation of the four different AI software it's good to gather an overview of what other AI software the interviews use in their work today and what they're looking into as future possible utilities.

5. **How much do you interact with AI in a typical workday, and in what specific ways do you utilise AI in your graphic design work?**

6. **How does your base of knowledge regarding AI look today, which type of AI software do you interact with and what other software are you familiar with?**

Questions 7 and 8 are there to accumulate the interviewees' views on the potential of incorporating AI into the field of graphic design. What are the interviewees' hopes and predictions for the new future of content creation in a visual manner?

7. **How do you see the role of graphic content creators evolving in response to the increasing use of AI in the industry?**

8. **What potential benefits can be gained from incorporating AI in the field of graphic design, such as new possibilities for experimentation and faster production times?**

Question 9 is aimed at AI's present limitations and challenges and how the interviewees experience them and how they work around them. This question is mainly there to give information about where the interviewees think the AI is lacking and therefore also get information on where the interviewees see a need of improvement from the AI's side. This question also provides clarity on where AI creates an opportunity for streamlined work and where it would rather add time to specific tasks.

9. **What are some of the main limitations and challenges that arise when using AI in the design process, and how can they be overcome?**

Question 10 is gathering the interviewees perspective on the severity and magnitude of incorporating AI into graphic design. Asking them to make a comparison to previous important reformations within the field of visual content creation.

10. **Prior Reformations in the graphic design industry have been significant, do you see the implementation of AI having a similar effect?**

Question 11's main goal is to get the interviewee to state what they believe the limitation or non-limitation AI has regarding expanding into new areas of their work. What areas of connected fields does AI influence and what do the interviewees think it will influence in the future as well as to what extent will the AI influence said areas.

11. **In your opinion, what is the potential for AI-generated designs to be further developed and expanded upon by human designers, such as in the creation of motion graphics or other types of design work?**

The 12th question is incorporated to see what the interviewees think the role of the universities have in educating future designers for an industry that is changing. This question opens up for follow up questions regarding the competition in the field regarding graphic designers that are educated in AI and graphic designers that are not.

12. **How can universities and educational programs prepare graphic designers for the increasing integration of AI in the industry, and what skills should they focus on developing?**

Question 13 is to get the interviewees perspective on what role AI will take in the business rather than what it will mean to the individual visual content creations.

13. **How do you envision the role of AI evolving in the field of graphic design, and what impact do you think it will have on the future of the industry?**

The ultimate question of the interview is to get a finishing statement on what their ideal and most dystopian scenario for AI in graphic design. This helps to gather a real overview on what different possible scenarios the interviewees believe can occur.

14. **What do you think is the best/worst case scenario for AI's implementation in Graphic design? Is there any AI influenced future you'd prefer and any you'd despise?**

8.2 Appendix 2

	Title	Working Experience	Nationality	Company
1	Creative Lead, AD	20 Years	Swedish	Full Service Agency

1. Can you tell us a bit about who you are and what you are working with?

I am an Art Director and also work as a Creative Lead, so I have an overall responsibility for more senior areas such as ideas and the creative process. I have been working as an Art Director since 2003, and I have been with my current firm since 2010. Before 2003, I was a Vision Merchandiser, and my work mainly involved building stores and shop windows.

2. On a typical workday, what are your tasks?

The basis of the job is that you are a team for a client, where we receive an assignment from a client, and it can look different, from rebranding to web design and application design. Then, we are a team consisting of a project manager, AD, copywriter, etc. But my role is to be responsible for the creative output. How it's packaged, how it looks, everything from color and form to image selection, how a film should be, it's the aesthetic whole and the packaging of ideas.

3. What types of tools and programs do you use on a typical day?

Adobe programs, Photoshop, Illustrator and Indesign. Figma is something we use a lot now, it feels like it's taking over more and more of our tasks. For example, digital advertising is something that is central to our clients, and Figma is used for everything like that, and all web sketches, etc. Then, I work in film programs such as Adobe Premiere. Keynote is usually the final destination for everything.

4. How much do you interact with AI on a typical workday, and what types of AI programs do you use?

It varies a lot, it can be a lot during a few days, then nothing during a week, but on average, I would say I spend around an hour a day on it right now. It's mainly Midjourney and ChatGpt that we work with the most. Midjourney is more for generating photos or images, and we're trying to find a way forward, how we want to work with it, and how to deal with copyright and who owns which images. On the other hand, we use it mostly for sketch images that we can use when pitching projects that we are interested in producing ourselves. The sketch images are at a very high level, which means that we have to struggle a bit to deliver a higher level of the final product when we do it for real. So there are many aspects there, but it's Midjourney even though this also applies to Dalle. We started a lot with Dalle, but Midjourney took a step further in terms of image quality in recent months. ChatGpt is a completely different thing; it's a bit like a search engine but a smart search engine. For example, we work closely with using ChatGpt for name generation for services or brands. There, you can have a lot

of use, asking it to come up with names related to keywords. The same goes for our programmers who use ChatGpt to write simple scripts. It's much more theoretical than Midjourney and Dalle in that sense. Like a smart search engine.

5. **What is your knowledge base on AI today, which types of tools do you integrate with? Which ones do you know exist?**

It was really interesting that you brought up Photoshop as one of your examples, as I don't think many people know what AI is and isn't in Adobe programs. It's something they've developed over a long time, but it's not really visible in the programs. Photoshop's content-aware fill is something we work a lot with. In that way, I actually use AI a lot more hours than I previously estimated. Everything that has been added to the Adobe suite that includes AI is something you come across every hour or so. External brands that generate content using AI, it's mainly Dalle-2, Midjourney, and Chatgpt that I've come across.

6. **How do you see the role of graphic content creators evolving if AI takes up more and more space in the industry?**

It's like, for example, the website you showed, "Brandmark.io." You can see it as increasing democracy, that more people have accessibility to create content. The spontaneous answer from people who have been around for a while is to say that the quality degenerates, that the craftsmanship disappears. That's a common opinion you can hear in the industry, that people are afraid that the real craft disappears and that everyone can do it. You can't really put aside that opinion. I think it will become commonplace to be able to produce images with very high quality and generate copywriting with high quality in just a few seconds, it will become available to everyone. But as we see it here, who have worked professionally in this way, it's rather the idea, what to do with the tool that we will still be able to charge for. Because our clients also have these tools and they can also generate images and copy with Midjourney and Chatgpt. But they don't really know what to do with it. How to put it together into a concept for a brand, how to make it fit with their soul and heart as they have decided that their company should stand for. How can AI tools help them put this together into a whole, somewhere in there is where the professional's everyday life comes in.

7. **Just to summarize a bit, do you think that competence will become more central in the design world?**

Yes, and how to apply it. You can make the comparison with the digital camera, when everyone was very impressed with the fact that they could take very good pictures. People were talking about 3 megapixels and how impressive it was. But that doesn't make you a very good photographer, you still have to know what to do with it to make something of it. Actually, this has also been the case with Adobe programs such as InDesign, Illustrator, etc. All of these have been very good for a very long time. But it doesn't mean that the quality of the average person's work has good design or a nice layout if they sit down with the program.

8. **What potential advantages do you think graphic design can gain from integrating AI?**

I believe that, for example, vectorizing things is one potential advantage. Things that took longer before, such as Photoshop functions. For example, if you need a sketch image of something and the background is too short, you can just expand it in a few seconds. We did it before, but maybe it took an hour, while today it can be done in 5 seconds. The same goes for ChatGPT, many of our copywriters who put together standard formulations want a variant. They have previously written the same text 150 times, but now they can use ChatGPT to get those iterations. So, I would say that things that you would have done anyway can be shortened, allowing you to spend time on other things instead. This can provide more freedom to focus on things you want to work on and refine. To sit in teams and have longer idea discussions and iterate several times instead of the raw craftsmanship

9. **What potential limitations do you think graphic design may have in integrating AI?**

As I mentioned earlier, one potential limitation could be that the craftsmanship may not be valued as much. Things like typography may not be valued as highly in the future, as "good enough" may become the standard. This is similar to marketing in general, where a expensive camera is no longer necessary to produce a commercial; a phone is good enough to make an Instagram reel for marketing. AI may lead to "good enough" and quick and dirty solutions. However, AI will likely continue to improve, and the level of quality will rise as well. It may become more difficult for traditional art directors or designers to fight for their small details and get people to pay for them.

10. **There have been substantial reforms in graphic design in the past, such as the shift from pen and paper to digital design. Do you see any similarities or differences between this and the emergence of AI?**

I definitely think there are similarities between the emergence of AI in graphic design and the shift to digital design. In the past, people used to do things manually, such as rubbing typography, so the transition from analog to digital was a more significant step. Today, we get updates on how to work all the time, and we live in a world of continuous change. I think AI will be one of the major changes, but the transition will be smoother. However, in 2023, people may use AI just for the sake of using it. In a few years, this may not be the case, and people will question why they need AI. It's the same with any new technology; at first, people fall in love with it, then they gain clarity and start to ask themselves if they really need it. I think we will look back on 2022 and 2023 as a significant turning point that changed a lot. It's difficult to see it as a change until it has already happened.

11. **In your opinion, what is the potential for AI-generated designs to be further developed and expanded upon by human designers, such as in the creation of motion graphics or other types of design work?**

It's difficult to say, but I think AI-generated designs will increasingly play a larger role. I believe that testing will be heavily influenced and developed, especially in relation to various disabilities such as visual or hearing impairments. AI may be able to act as a user with these difficulties. Of course, a human will always be a human, but it could facilitate testing in the future.

12. **With the idea that the industry is developing with AI, do you think universities will need to adapt accordingly and if so, how do you think this adaptation may need to be?**

I think it's more important to teach the basics of creating a designer with a good eye and who understands what good/bad design is. Regardless of the tools used in the future, I believe that the central function of a graphic creator is to know what is good and how the final product will be, and then it doesn't matter which tools have been used to get there. Good design will always be good design. Technology is constantly being updated, from cameras, programs, etc., which means that schools will never be able to update their curriculum at the same pace. The industry is constantly changing, so with their budget and timeline, schools will never be able to update their curriculum at the same pace as the industry. However, I believe it is important to have many guest lectures so that students can stay "up to date" with what is happening in the industry and perhaps update themselves more on which tools will be hottest when they go out and test the industry.

13. **What is the best/worst possible scenario for the implementation of AI in graphic design? Is there an AI-influenced future that you prefer and one that you despise?**

The best scenario is probably as I mentioned earlier, that it becomes more about using the technology for practical purposes rather than just seeking flashy effects. People share a lot of content now and ask others to check out the cool things they've generated, but we need to let go of that and focus more on what we can use the tools for. One of the best ways to work with AI is as Adobe has done, by integrating it directly into their programs. For example, like Firefly, there are prompt functions in Illustrator.
The worst scenario is that we are doing something foolish right now with copyright, and we are feeding AI with bad content, so we are losing ourselves in copyright and who owns an image, text, etc. There is no longer anyone who puts heart and soul and time into creating an image or a fantastic text. You can no longer say who did what and you can't even be certain who did what. Our profession might become watered down. On the other hand, some people might see it as beautiful to have a global collaboration.

	Title	Working Experience	Nationality	Company
2	Art Director	7 Years	Swedish	Full Service Agency

1. What do you work with and for how long have you been doing it?

I work as an Art Director and I'm currently in my seventh year now.

2. If you were to describe a typical workday, what tasks do you encounter?

I spend a lot of time working in Figma, but I primarily focus on the more strategic aspects of design, such as ensuring that components align with the brand and are visually consistent. I then move on to handoff. However, most of my time is spent in meetings with clients, either presenting designs or discussing design strategies. I also spend time addressing internal knowledge issues. That's a typical day for me.

3. Which software do you use on a daily basis? What types of programs and so on?

I use a lot of Figma, Keynote, PowerPoint, all text processing programs like Word and occasionally touch on Adobe XD. And a new addition to my toolset has been ChatGPT, to generate a lot of text or as a kind of draft, so to speak. Or as a frame to create more content and plan and summarise.

4. How much would you estimate that you interact with AI during a normal workday? Both actively and passively. Content-generating AI, excluding text, purely graphic generation. How much would you say you interact with AI?

On a daily basis, very little. I mostly use Teams. Figma plugins are probably the most I use and I do use them quite a bit. There are tools like background reduction to make it quick instead of loading it into a tool-to-pen tool and such. It's a quick way to remove backgrounds.

5. What is your previous knowledge base of AI? What different types of programs are you familiar with? Of the four programs we talked about today, have you seen them all before, or is there something that is new to you?

I have seen some of those examples before but I wouldn't say that I am an expert in them. I use the tools that I come across and can see being implemented in my daily workflow. Just Firefly and perhaps Midjourney, Dall-e and others may not be as relevant since I don't search for such specific images every day. Adobe Stock still works well, and it's very rare that I need that kind of specific image.

6. **Do you see AI as a tool in this or is it AI on its own that will change how we work?**

In this case, I believe that AI as a tool will become almost a requirement to contribute effectively and to streamline workflows. In other words, AI should be used as a tool rather than being the other way around. In the future, generating content such as text, images, or videos will be more about curating content than creating it. In the idea process and in final curation, AI is actually irrelevant, but in the craft between idea and product, I think AI will free up time. I use a lot of text AI to summarize briefs or as a kickstart for a lot of things that I then process and also to formulate emails. Based on all the prompts I've run in both image and text, I can feel that there are patterns in the generation, but it's easy for it to become homogeneous. The more data that comes in, the less homogeneous it will hopefully be.

7. **There have been significant reforms in graphic design in the past, for example, when digital design took place and people went from pen and paper to computer. Do you see any similarities/differences between this and the emergence of AI?**

I have been thinking about this and I feel like it's more similar to when the combine harvester was introduced and replaced horses with something mechanical to speed up the process, but the craftsmanship is still there. It's more about knowing when to use what. But when something becomes available to everyone, it becomes easier to be your own designer or editor, and then things can become quite homogeneous if AI allows it. The question really is how to avoid that.

8. **With the idea that the industry is developing with AI, do you think universities will need to adapt accordingly and if so, how do you see this adaptation needing to take place?**

I have been thinking about the authenticity of a thesis, where one can now generate a thesis to a large extent. When it comes to graphic design, I don't think they need to worry at the moment because I find it hard to see that the focus is on how your artefacts are created, even if you have used AI. It's your ideas and your way of using AI that comes to the end product. Does it matter what tools you have used to create the product? Good artists copy, great artists steal. Regardless of how AI-adapted education looks like and what it includes, the end product is always the central thing. It really doesn't matter how you got there.

9. **How would you describe the best and worst case scenarios for AI's entry into the graphic design world?**

For me as a creator, it means that I can iterate and polish my projects more times. Because it is somewhere there where the time versus value equation produces results. Just because I unlock more time doesn't mean that the product has greater value. But it unlocks more time for other tasks that can generate value. The question is really how close AI can come to a from-scratch work. If it is close enough, then it is an extreme time-saver.

	Title	Working Experience	Nationality	Company
3	UI Designer, Teacher	15 Years +8 years Teaching	Swedish	Full Service Agency

1. What do you work with and how long have you been doing this?

I work as a UI designer and I'm back at it, so to speak, for a little over half a year. Before that, I taught UI design, digital image editing, and some motion graphics for about seven to eight years. But before this I was in this industry, but back then it wasn't called UI, it was called web design and web AD and such things. Going back that far, it's been about 15 years now, I think.

2. If you were to describe a typical workday, what tasks do you encounter?

The most enjoyable part is when I'm designing in Figma, so there's a lot of that. Then there are a lot of client meetings, follow-ups, and some research and planning work as well. But I would say that the majority of the time is spent in Figma.

3. What software do you use on a daily basis? What types of programs, and so on?

I would say that I use spreadsheets as well as Teams and Slack. But otherwise, Figma and the browser are where I reside.

4. How much do you estimate that you interact with AI during a normal workday? Actively and passively. Content-generating AI, excluding text, pure graphic generation. How much would you say you interact with AI?

When I work with graphics, it's not much. But it still depends on what you count as AI, there are plugins in Figma that generate content and help in different ways. It's still not really on a daily basis, but let's say every other day.

5. What is your previous knowledge base of AI like? What types of programs are you familiar with from before? Of the four programs we talked about today, have you seen them all before or is there something new for you?

We use example images in our work, and we use Adobe Stock, but I think it would be fun to try Firefly more in the future. Enter specific commands like specific colours. So I still see that we could use these kinds of services more than we do today, but so far, I haven't used them in my work. I recognized all of them except Brandmark.io, but I have only tried Dall-e.

6. **How do you see the role of graphic content creators evolving if AI takes up a bigger place in the industry? Do you think AI will change the way we work in graphic design?**

Yes, I absolutely think so. I'm not worried about losing my job because of AI, but I do believe that the role will change and we will work differently. This is a tool that we will definitely use and we will benefit greatly from AI. We've seen this in the last six months with ChatGpt, DALL-E, Midjouney, etc. It's almost becoming a skill to be able to prompt and use these tools. I think this is one way in which the role will change in the future.

7. **Do you see AI as a tool or as something that will fundamentally change the industry by itself?**

The way I see it, at least in the way I use and want to use AI tools in the future, is that they are often a kickstarter. When you're sitting with a blank piece of paper and ask AI to generate three design ideas, I can spin off from there. Today, you might have had other ways to start, like browsing Pinterest or taking a walk around the lake. Everyone has their different ways of getting inspiration, and I think that's where AI can play a big role. It can quickly generate different options that you can then work with.

8. **There have been significant reforms in graphic design in the past, such as when digital design took over and people went from using pen and paper to using computers. Do you see any similarities or differences between this and the emergence of AI?**

What comes to mind when you ask that question is when Wordpress themes came out. Wordpress and especially Wordpress themes is a huge timesaver for small scale projects but it's also an easy way for "anybody" to create a webpage. And therefore, suddenly, half of the web looked the same. There is a risk of that happening with AI, but I have higher hopes for it. I'm not really worried about homogeneity, but the risk is there.

9. **Do you see the potential for AI to enter other areas of design, such as UX design or motion graphics?**

I definitely think so, as long as it can maintain a high enough level of quality. What I think is closest on the horizon is film-making or shorter illustration films. Let's say you want an informative 30-second video describing how to put on a life vest on a plane. AI will be able to prompt and generate that.

10. **With the development of AI in the industry, do you think universities will need to adapt accordingly, and if so, how do you see this adaptation taking place?**

I definitely think that knowledge of AI can be a competitive advantage to have in one's arsenal. It's something that will be used in the industry, and I think that workplaces that choose not to use AI will become too expensive. So with that said university students would benefit from entering the industry with at least some baseline knowledge of AI.

11. How would you describe the best and worst-case scenarios for the entry of AI into the graphic design world?

When I hear the question, I think of becoming more efficient, where my work becomes more efficient because I can use new tools in new ways. That's probably the best possible scenario. This is super interesting because it comes back to the question of how we value work. What could happen is if AI becomes so easy and accessible that individuals and small businesses can create their own designs. In this scenario, it could become difficult for smaller design agencies to get work, and eventually, only the large agencies will remain. This can be seen as both the best and worst-case scenario. In theory, it could also mean that graphic design jobs become less plentiful and suffer that way.

	Title	Working Experience	Nationality	Company
4	Digital Marketer, Visual Designer	17 Years	Swedish	Marketing Bureau

1. Can you tell us a bit about who you are and what you are working with?

I run a firm together with a colleague. We are a two-person advertising agency that mainly works within front-end development, branding, and animation, among other things. The firm started as a high school project in 2006, which was further developed into what it is today.

2. How much do you interact with AI during a typical workday and what specific ways do you use AI in your graphic design work?

Well, the concept of AI can be interpreted in various ways since it is used in many of the tools I use in different ways. The type of AI we are discussing now or that is on the rise, is a new way of looking at it. We recently explored various tools in Adobe that use a more hidden form of AI. AI is used all the time in these programs, but if we think about the new types of programs that have exploded recently, we haven't implemented them as much in our graphic design work. However, in other areas such as text and copywriting, AI is becoming increasingly relevant for us. I would still say that the area where we use AI the most is in coding and programming.

3. How is your knowledge base about AI today? What AI software do you use, and which ones are you familiar with beyond the four we have already mentioned?

MidJourney is something I have experimented with myself, but I don't have much experience with visual generation specifically. Apart from that, I have played around a bit with DALL-E 2 and MidJourney, but that's about it.

4. How do you see the role of graphic content creators evolving in response to the increasing use of AI in the industry? Is it necessary to adapt?

I believe that there will be a lot of changes in how we work and that different areas will be connected. However, we don't know exactly how it will turn out, as it depends on how well we become at using the tools. There are many areas where AI can replace whole parts of what we do. Additionally, I think that there can be a hype around this field, and as it develops, it will become more specialised and diverge towards a particular direction, which will create new areas for graphic designers to take over. I think it can help a lot in shortening the craftsmanship part of the process, from an idea to something concrete. It can significantly reduce the time it takes to generate an image for a pitch, for example, if you want to showcase a specific idea like "an avocado chair." It can shorten the process from an idea in your head to something concrete on the table, which currently takes a lot longer. It is difficult to determine precisely which part AI will impact.

5. **It is precisely why we are asking these questions, it becomes extremely relevant for those who are already in the industry, but also for us students who are now entering this industry. What should one expect?**

Well, no one really knows, and much of it depends on what we shape it into. However, there is certainly potential in it. You can create cool things and do it quickly. We just have to adapt to it, as AI somehow owns us, so we must try to handle it in a good way

6. **It goes a bit into the potential we are talking about, but in an ideal world, from your perspective: what place does AI have for a graphic designer?**

If it can shorten the process from a creative idea to the final product, it's good. If it helps us avoid spending a lot of time on craftsmanship and ensures precision, and if it can shorten and streamline the process, then it is very welcome.

7. **And if you flip it completely, in a dystopia, what role does AI take on for a graphic designer then?**

The dystopia I could see is a very uniform design trend, where everything starts to take shape in a certain way and there would be a lot of sameness. There would be very few things that deviate from the norm.

8. **The creative freedom is lost?**

Yes, but in such a case, it will be up to us humans to accept it, but I don't think we will. Because I think we always want something different, we want things that stand out and feel different in various ways. I don't think it will happen, or at least I'm not afraid of it. But there may be a time in the future when things move very fast and become a bit homogeneous. I could really imagine that happening, and it could be a darker period in that respect.

9. **The content-generating software we see today focuses quite a lot on the visual content, such as images, photographs, and in some cases even vector graphics. How do you see this being applied to areas such as motion graphics or UX/UI design? Is this something you see as having future potential?**
Yes, I think it's just a matter of time, it will come to that point as well but it takes some time. Everything goes fast and has gone fast, so I think it's very close.

10. **As it looks today, university educations are preparing for a graphic design industry that does not include AI or at least very limited AI. Do you see a need to adapt this to a more AI-related education?**

Yes, I think that's needed very soon. It's like when we transitioned to computers, there were some who stayed behind and didn't want to make that switch to computers. And they wanted to work analog, it

sounds like it was 200 years ago but it wasn't. I think it's best to go along with the development, so we can shape it correctly, we probably have no choice, we just have to go with it.

11. **That becomes very relevant for us as students and also for those of you who are already in the industry, who will need to compete with newly graduated university students who already possess AI knowledge from their education.**

I think it's great to learn about AI and try to understand it because we won't be able to do without it. However, the basics of creativity and design will always remain important, and they are a bit different. I believe it's essential to become proficient in AI.

	Title	Working Experience	Nationality	Company
5	UX/UI Designer	10 Years	Swedish	Full Service Agency

1. Can you tell me your job title and for how long you've been in the industry?

Hi, I'm a preliminary UX/UI designer and I've been doing this for the last 10 years, specifically focusing on UX/UI design for the past 5 years.

2. If you were to describe a typical workday, what tasks do you encounter?

On a normal work day, I'm working on designing and prototyping digital products, conducting user research, creating wireframes, collaborating with developers to finalise projects, and testing and iterating on designs based on customer feedback.

3. What software programs do you typically use?

I typically use design tools such as Figma and Adobe XD for creating designs and prototypes, as well as tools like InVision for user testing and feedback gathering. I sometimes dabble in the Adobe Suite but dominantly I use Figma for most of my designs.

4. How much do you interact with AI in a typical workday, and in what specific ways do you utilise AI in your graphic design work?

Currently, I don't interact with AI very much in my work. However, I'm aware that AI-powered tools and software are becoming more prevalent in the industry and have the potential to help automate certain design tasks and provide insights into user behaviour which I think will be a super useful streamlining tool in the future for me. You do though have like "invisible artificial intelligence" that you don't really think of, but that programs have implemented.

5. How does your base of knowledge regarding AI look today, which type of AI software do you interact with and what other softwares are you familiar with?

I have a basic understanding of AI and its potential applications in the field. While I haven't had much experience using AI-powered tools and software in my work, I'm familiar with some of the popular tools in the industry, such as Dall-e and Adobe Sensei, the two other examples you showcased. Was it Firefly and Brandmark.io?

Interviewer: Yes, exactly

I hadn't heard about them before but I'm thrilled to hear that Adobe will soon release their own prompt-based generator. However I do feel like it would be beneficial if it were to be introduced directly into their programs like a function in photoshop etc.

6. How do you see the role of graphic content creators evolving in response to the increasing use of AI in the industry?

I believe that the role of graphic content creators will continue to evolve in response to the increasing use of AI in the industry. While AI tools can help streamline certain design tasks and provide valuable insights, there will always be a need for the "human touch" to add creativity and finish the design process. As AI becomes more integrated into the industry, I believe that designers will need to develop new skills and adapt to new technologies in order to remain competitive and effective in their work. Otherwise I feel you will lose you competitiveness.

7. What potential benefits can be gained from incorporating AI in the field of graphic design?

The benefits I can see from incorporating AI in the field include hopefully faster production times, greater efficiency and accuracy in tasks such as data analysis and testing. AI can make it easier to identify patterns and insights that may not be apparent to the human eye, leading to more informed and user-centred design decisions in response to AI powered usertesting.

8. What are some of the main limitations and challenges that arise when using AI in the design process, and how can they be overcome?

The main limitations I see of AI in the design process is that it can sometimes lack the human creativity and intuition that is needed to create truly engaging designs that become memorable. Another challenge is that AI algorithms and models are only as good as the data that they are trained on. To overcome these challenges, designers need to strike a balance between utilising the capabilities of AI tools and software and bringing their own creativity and intuition to the design process. I see a potential future when you are treating an AI tool as a shortcut for the entire project and if that becomes trendy it runs the risk of maybe becoming homogenous and lacking a sense of human creativity AKA boring.

9. Prior reformations in the graphic design industry have been significant, do you see the implementation of AI having a similar effect?

I believe that the implementation of AI will have a significant impact on the graphic design industry, similar to the way that previous technological advancements like the computer's first introduction have transformed the field. However, I also believe that the role of human designers will remain essential in the design process. As I said before I don't think that AI will be able to replace the feel of human touch on a project.

10. **In your opinion, what is the potential for AI-generated designs to be further developed and expanded upon by human designers, such as in the creation of motion graphics or other types of design work?**

I think that there is a lot of potential for AI-generated designs to be further developed. I feel like a broken record and I keep repeating myself but while AI tools and software can help streamline certain aspects of the design process, they are not a replacement for human creativity and expertise. I believe that the most successful and impactful designs will be those that combine the best of both worlds: the speed and efficiency of AI, and the free creative aspect and innovation of human creators.

11. **How can universities and educational programs prepare graphic designers for the increasing integration of AI in the industry, and what skills should they focus on developing?**

I think it would be very hard for university curriculums to keep up in these ever updating times, with that said graphic design and the tools we use have always been upgraded at a fast pace and the education doesn't look the same as it did 20 years ago. So obvious changes will be made but I think the essence of graphic design is the most important part to learn. What is good design, how should an end product look etc. Then whatever tools the designer uses to reach the final design is going to update and so will eventually the universities and what tools they teach.

12. **What do you think is the best/worst case scenario for AI's implementation in Graphic design? Is there any AI influenced future you'd prefer and any you'd despise?**

In the best-case scenario, AI-powered tools and software will help designers to work more efficiently and effectively, leading to better but also with emphasis on faster design outcomes and user testing. However, in the worst-case scenario, AI could be used as a replacement to all the craftsmanship that goes into graphic design and then we run the risk of all future designs looking very similar and being too homogeneous for my taste. But I hold the best case scenario way more likely. At the same time if we look how fast ChatGPT has developed since the launch, it's still a bit scary how fast other artificial intelligence programs might develop as well. I believe we have only scratched the surface at the moment. But I don't believe that graphic designers need to feel threatened. I don't think that the machines are able to get that nice final touch and put it all together as a whole good enough. At least not at the moment.