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Ethics on Artificial Intelligence in Professions

There are ethical dilemmas that could affect those working in professions involving design related to artificial intelligence and the design process. The advancements being made to artificial intelligence have resulted in its use becoming more widespread. There are many ethical discussions concerning the impact of artificial intelligence on professions, society, privacy, and safety. For example, there are ethical concerns about the use of AI-generated works and its use in creative professions, such as graphic design. There are several codes of ethics that guide those working in technical professions, such as the Association for Computing Machinery (ACM) and the Institute of Electrical and Electronics Engineers (IEEE) code of ethics.

There are similarities and differences between the ACM and IEEE codes of ethics. Both place importance on privacy, avoiding or minimizing negative effects on people, upholding responsibility, and being honest and fair. The two codes of ethics differ in length and description, with the IEEE code of ethics being compact and brief, whereas the ACM code of ethics is longer and more detailed. These codes of ethics are useful in guiding what should be considered when working in technician professions and predicting possible issues that could arise. The principles of these codes of ethics can be supported by the bible. For example, “‘Everything is permissible’ – but not everything is beneficial. ‘Everything is permissible’ – but not everything is constructive. Nobody should seek his own good, but the good of others.” (1 Corinthians 10: 23-24, *NIV*), which supports thinking about the possible effects on others and not just considering the benefit of the individual or company in section 1 of the ACM code of ethics and section I and II of the

IEEE code of ethics. Section 1.3 of the ACM is also supported by the verse, “The Lord detests lying lips but he delights in people who are trustworthy” (Proverbs 12:22, *NIV*). Whether those in the technical professions follow the codes of ethics or the bible, it is necessary for ethics to be considered throughout the process of their work.

With the use of artificial intelligence becoming more widespread, it is even more important that there are policies put in place and that people are informed about artificial intelligence. While artificial intelligence can provide great benefits to society, many people are worried about how it is used. For example, the use of AI in the hiring process of companies, depending on the training data that is used for the artificial intelligence system could result in selection bias. “For Amazon, its hiring algorithm systematically assigned higher scores to males rather than females.” (Engelke 2). The designers did not intend for this to happen, but it was what resulted based on the parameters and training data. If the use of AI in hiring processes is followed by other companies, it could potentially go against the ACM code of ethics, “1.4 Be fair and take action not to discriminate.” (acm.org) and the IEEE code of ethics, “II. To treat all persons fairly and with respect, to not engage in harassment or discrimination, and to avoid injuring others.” (ieee.org). This means that not only did the technical professionals who created the AI fail to uphold the codes of ethics, but it will affect every person to whom the AI hiring process is used. The solutions to this would be either limiting or prohibiting the use of AI in the hiring process while informing applicants that AI is used in the hiring process. By informing the applicants, it follows both the ACM and IEEE codes of ethics, being honest and ensuring the involved parties are knowledgeable about the technical aspects.

For creative professions, there is also a concern that the design process would include AI-generated works or being replaced entirely by AI. The United States Copyright Office has

stated that “copyright can protect only material that is the product of human creativity.” (“Copyright Registration Guidance,” 2). There are still questions on intellectual property issues, on who owns the product, whether it is the artist(s) whose work is used as training data, or the programmers who developed the artificial intelligence system. Many artists consider the use of AI-generated art to be unethical as AI systems did not receive consent from artists before using their works as training data. The founder of Midjourney, David Holtz, confirmed in an interview that consent was not sought and that “It would be cool if images had metadata embedded in them about the copyright owner or something.” (Salkowitz). This goes against the ACM and the IEEE codes of ethics, “1.5 Respect the work required to produce new ideas, inventions, creative works, and computing artifacts” (acm.org) and “5. to seek, accept, and offer honest criticism of technical work, to acknowledge and correct errors, to be honest and realistic in stating claims or estimates based on available data, and to credit properly the contributions of others;” (ieee.org). Even though it would have been difficult to achieve the consent of millions of images, that does not excuse no effort in seeking consent. The problems with artists not being informed or able to opt-out of their work being used is evidence that, while developing Midjourney, its effect on artists and other creatives was not considered. Holtz also said that Midjourney allows commercial use of the works generated using it. This is harmful as it takes away potential revenue from those in creative fields. That statement about having metadata embedded in images could be a possible solution, however, given how many images are already online it would be difficult unless resources are allocated towards developing it.

Aside from receiving consent and giving compensation, other solutions would be disclosing that the images were generated by AI on the images themselves, similar to a watermark. There should also be policies in place to prevent the works of creatives from being

used as training data without consent or compensation, as currently, any work uploaded to the internet is at risk. The use of AI could potentially be a part of the design process, such as during the concept stage. In order to qualify for copyright, there must be human creativity, and there should be a consensus as to how much of the process should be AI and how much should be human. For example the US Copyright Office states, “applicants have a duty to disclose the inclusion of AI-generated content in a work submitted for registration and to provide a brief explanation of the human author’s contributions to the work. (“Copyright Registration Guidance,” 4). Those in technical and creative professions should ensure that when using AI, the training data is sourced ethically, that the majority of the work still remains their own, and that the use of AI is disclosed.

AI will have a greater impact in the future, so it is essential that those in the technical field be informed on policies regarding AI and plan on protections for those who are adversely affected. As it stands, using AI in creative fields lacks policies and rules in place in order to follow the codes of ethics. Even without policies already in place, it is the responsibility of those in the profession to be ethical and support the creation of those policies. As AI advances, it will be harder to identify which images are generated by AI, so unless there is a concrete way of identifying them, it would be up to those in the profession to remain ethical. Those who are responsible for creating AI systems should also keep in mind that not every user will use it ethically and that there should be protections against misuse.

Works Cited

- “ACM Code of Ethics and Professional Conduct.” *ACM*. Association for Computing Machinery, www.acm.org/code-of-ethics. Accessed 23 Mar. 2024.
- “Copyright Registration Guidance: Works Containing Material Generated by Artificial Intelligence.” United States Copyright Office, 16 Mar. 2023. https://copyright.gov/ai/ai_policy_guidance.pdf. PDF file. Accessed 23 Mar. 2024.
- Engelke, Peter. *AI, Society, and Governance: An Introduction*. Atlantic Council, 2020. *JSTOR*, <http://www.jstor.org/stable/resrep29327>. Accessed 22 Mar. 2024.
- “IEEE Code of Ethics.” *IEEE*, Institute of Electrical and Electronics Engineers, www.ieee.org/about/corporate/governance/p7-8.html. Accessed 23 Mar. 2024.
- Salkowitz, Rob. “Midjourney Founder David Holz on the Impact of AI on Art, Imagination and the Creative Economy.” *Forbes*, Forbes Magazine, 5 Oct. 2023, www.forbes.com/sites/robsalkowitz/2022/09/16/midjourney-founder-david-holz-on-the-impact-of-ai-on-art-imagination-and-the-creative-economy/?sh=11a1dcdd2d2b.
- The NIV Bible. The Bible Gateway, 2024, <https://www.biblegateway.com/>. Accessed 23 Mar. 2024.