

Chai Mei Shan (U1830486H)

Profs: Serena Pang, Desmond Low, Ash Y.S. Yeo

DD3016 History of Design

Question IV: What ideals, principles, motto and design qualities might you use to describe and define the next emergent design trend valid over the next 5 years, current to your practices? What name would you give to the design movement?

Pilote Automatique

With the increased trend of Machine Learning and Artificial Intelligence (AI) being adopted in industries such as finance, computer science and more, it is not surprising that this piece of technology is slowly making its way into the arts. Created as an attempt to mimic the human brain(Lee et al.) in learning and making decisions, significant results have been seen in industries such as the healthcare industry whereby AI programs had a higher success rate in accurately identifying cancer from scans.(Mercan et al.) Though the impressive results from the other industries, it was always believed that AI could never design, only recreate, therefore will never replace designers. However, this might be proven wrong with some recent experiments with AI in the design field.

In 2017, Nutella collaborated with an advertising agency, Ogilvy & Mather Italia, on a project, Nutella Unica, to create a series of seven million different Nutella packaging. (Fig.1) These seven million packaging were created not by designers, but by an algorithm that extracts patterns and colours from a database and then generates unique designs with different combinations.(Aouf)



Fig 1 – Nutella Unica packaging (Oh)

Another example would be a set-up, Perception Engines, created by Tom White. (White) It is said to be “able to construct representational physical objects and is powered primarily by computational perception”. Abstract pieces of ink prints are created by inputting images found on ImageNet into the machine and allowing it to identify patterns then creating its own version of particular objects. The result is a series of pretty engaging prints. (Fig.2)



Fig 2 – All 12 prints in the Treachery of ImageNet series(White)

True to what had been always believed, I do believe that AI will not one day replace artists. Rather, it will be another platform or tool that designers can use to express and create art of their own. Creating art through the designing of the program rather than the design of the artwork itself. Results obtained from these kind of creations are not predictable, which I think has is a certain beauty to it. Hence I would propose “Beauty in the unknown” as the motto of this movement. Often artists tend to have a certain persistence as to how their art should look and turn out, which might be limiting in some instances. Having a machine eventually deciding how your final work would look and turn out, breakthroughs in art could be made. Like the works in The Treachery of ImageNet series, works could turn out to be thought evoking and unique as in that example, we are practically looking at how a machine perceives our world through its understanding from images.

I would propose to name this design movement, *Pilote Automatique*, which means autopilot in French. Reason being, similar to autopiloting on an aircraft or vehicle, the system do not replace the human operator but instead assist them which I thought is very fitting to this context of AI and artists. Artificial Intelligence will not replace artists in creating the artwork, they are merely a tool to aid, contribute and maybe even collaborate. An example would be Sougwen Chung's piece, *Drawing Operations Unit: Generation 2 (Memory)*.(Cote) This artwork a collaboration between Chung and a robotic arm that was trained to learn and follow Chung's style of art which enabled her to draw alongside with the robot in real time.

Though Artificial Intelligence and Machine Learning are thought to be intelligent, the ones that are contributing to its capabilities are till the people who designs and feed it with information. With the extensive resources that are accessible to everyone on the internet nowadays, machine learning and AI is no longer something that can only be done by big companies with their own resources. Therefore, I am certain we will be seeing more of art created with the use of AI and machine learning by designers in the years to come.

Works Cited

- Aouf, Rima Sabina. "Algorithm Designs Seven Million Different Jars of Nutella." Dezeen 5 June 2017 <https://www.dezeen.com/2017/06/01/algorithm-seven-million-different-jars-nutella-packaging-design/>.
- Cote, Jack. "Drawing Operations Unit: Generation 2 (Memory)." 21st Century Digital Art 23 May 2018 <http://www.digiart21.org/art/drawing-operations-unit-generation-2-memory>.
- Lee, Eun-Jae et al. "Deep into the Brain: Artificial Intelligence in Stroke Imaging." *Journal of stroke*, vol. 19, no. 3, 2017, pp. 277-285, PubMed, doi:10.5853/jos.2017.02054.
- Mercan, Ezgi et al. "Assessment of Machine Learning of Breast Pathology Structures for Automated Differentiation of Breast Cancer and High-Risk Proliferative Lesions." *JAMA Network Open*, vol. 2, no. 8, 2019, pp. e198777-e198777, doi:10.1001/jamanetworkopen.2019.8777.
- Oh, Jasmine. "Yes, Ai Will Replace Designers." Microsoft Design 22 August 2019 <https://medium.com/microsoft-design/yes-ai-will-replace-designers-9d90c6e34502>.
- White, Tom. "Perception Engines." Artists + Machine Intelligence 3 September 2018 <https://medium.com/artists-and-machine-intelligence/perception-engines-8a46bc598d57>.