1/3 Reflection

Explore Lab 2022-2023 Samuel Slezak (5398495)

Tutors:

Victor Muñoz Sanz (Research)
Georg Vrachliotis (Architecture and Design)
Georgios Karvelas (Building Technology)

Delft University of Technology Faculty of Architecture and the Built Environment Department of Architecture MSc. Architecture, Urbanism and Building Sciences

The central aim of my project was to delve into the relationship between the architecture profession and technology. Although these two worlds are inherently intertwined, architecture has consistently under-utilized technology compared to other disciplines that have adeptly adapted to our increasingly digital and tech-dominated landscape. Nevertheless, technology plays a pivotal role in shaping our spaces, a role that will only grow with time. The current wave of artificial intelligence (Al) development, sometimes called the 'second summer', makes it almost inevitable that Al will permeate all facets of our lives. Therefore, my project endeavours to imagine and ignite a discussion about the dynamic between humans and machines and the architectural profession's potential role in this evolving narrative.

Reflecting on Research Method and Scientific Relevance

Looking back at the period since the P2 presentation, the selected research method for this project was adept. The Futurecraft method, employed during my research, has stirred up a conversation about the role technologies play in our lives and the question of who should be steering their design. Futurecraft is all about envisioning possible futures to stimulate debate about implementing new technologies and how we might navigate their potential pitfalls. Applying this approach has allowed me to uncover current trends in human-machine relationships. The advent of AI, specifically Large Language Models (LLM), underscores the urgency of these discussions across all sectors of society. Although a large

2/3 portion of AI research is being commercialised – which may not necessarily be detrimental – LLMs have made AI more accessible, reaching disciplines previously untouched or only recently entering the conversation. Interest in AI has surged among architects in academia and practice over the past few years despite initial dabbling in the '70s. LLMs, in particular, could be a game changer for architecture, particularly in improving communication with clients and democratising architecture through models such as Midjourney.

Relationship Between Research and Design, Design Methodology And Relationship to Master Program Architecture

While not every aspect of the research was translated into the design stage, its relevance to emerging technology, especially AI, is significant. The study primarily focused on the cultural, moral, and social impact on society, which has been successfully incorporated into the project's design. The research couldn't foresee the emergence and popularity of large language models like Chat GPT. These models have opened the doors for even more professions, architecture included, to be influenced by AI integration. Recognising this, I intend to extend the research in my graduation project's final stage to explore the rise of large language models, their potential place in architecture, and their impacts.

Relationship to Wider Social, Professional, and Scientific Framework

As hinted earlier, addressing human-machine relationships is more critical today than ever. Keeping pace with rapid advancements in AI is a daunting task, even for experts. Recent calls from AI development leaders for regulation present a significant challenge as developers try to maintain research momentum while aiming for product reach. Technologies capable of manipulating opinions or inducing addiction, often called 'brain stem' technologies, first appeared with social networks. Given the potential societal impact, experts are increasingly cautioning against their widespread release. Therefore, a project like mine, suggesting a Living Lab for testing new technologies, is necessary. Envisioned as various architectural typologies - offices, hospitals, dwellings etc. - these labs could allow for controlled deployment of technology under supervision to prevent unwanted outcomes. The goal isn't necessarily construction but to provoke societal thought about technology testing methods. A project like mine may spur a conversation among non-experts about how technology could influence their everyday lives.

3/3 Ethics and Dilemmas

The topic of AI could rapidly evolve into one of the most significant dilemmas society has ever faced. The primary risk stems from its unparalleled development speed, threatening to outpace many of our societal systems. A 'living lab' project could provide critical insights and data for safely implementing these novel technologies. Yet, it also presents ethical challenges. For example, testing potentially manipulative technologies on humans, in this case, students, might have unintended consequences later in their lives.

Furthermore, increased automation might lead to further human disconnection from their real-world environments, or machines might entirely replace our social needs. These are just a few of the dilemmas arising from my project. However, its true purpose is not to design a human laboratory but to craft a narrative and space where everyone can imagine spending time defining their relationship with technology. A responsive approach to implementation, a thorough analysis of potential problems before deployment, and a controlled environment, as suggested in my work, may help mitigate the risks of this new technology without stigmatising its potential benefits.