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ALTERNATIVE FUTURES! FOSTERING ECO-DIGITAL AGENCY IN GENERATIVE AI WORKSHOPS WITH YOUNG PEOPLE

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Introduction

"I wouldn't want to be a prisoner of Google, because it is Google that rules the world, but that's the way it is." This quote from a research participant in my dissertation reflects the rather resigned and powerless sense of agency that many people share about their networked everyday lives (Saariketo, 2020). It gave a spark to the ongoing research project in which methods to imagine alternative digital futures are experimented with to foster *eco-digital agency*. The paper presents methodological reflections, observations, and critical considerations from workshops in which sustainable digital futures were imagined with young people using an artificial intelligence (AI) image generator as a tool. The key methodological question is: how could we as researchers create methods to spark imagination and inspire reflection about alternative futures? The theme of the conference, 'industry', is discussed by addressing the need to contest and re-imagine the hegemony of Big Tech corporations that control society and our everyday lives, the unsustainability of the devices and services they design, and the challenges that critical research encounters when existing generative artificial intelligence (GenAI) applications are adopted as research tools.

The ability to imagine alternatives is important in fostering hope for more just futures. However, breaking away from the present and the familiar is not easy (Poli, 2017; Miller, 2018; Markham, 2020; Saariketo, 2020). In fact, it has been argued that the lack of imagination has prevented finding effective solutions to the urgent planetary crises (Bendor, 2018), and our time is characterised by the decline of political and utopian imagination pressingly needed to challenge capitalism (Salmenniemi et al., 2024). By tackling these issues, the paper contributes to nascent research that explores and experiments with so-called speculative methods in the field of critical media and infrastructure studies. It addresses the challenges in the field which does not yet have ready-to-hand methods available for researchers to initiate reflection on the domineering imaginaries of media technologies and how these imaginaries position people (see also Hall, 1983/1996; Vigen & Ridell, 2021). Furthermore, according to a

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recent literature review, the methodological field of transformative imagining is fragmented, with work being done across a range of disciplines with few cross-references or a lack of core literature (Ketonen-Oksi & Vigren, 2024).

The unsustainability of digital everyday life

Digitalisation and technology have often been put forward as solutions to address the planetary crises and provide solutions to climate change, environmental pollution, and biodiversity loss (e.g. United Nations, 2018; Muench et al., 2022). Nevertheless, the latest technologies, such as AI, are only partial and even deceptive solutions to the planetary crises if their sustainability is not addressed (Crawford, 2021; Heilinger, 2022).

In a recent survey, Finnish young adults voiced their hopes to have environmentally and socially sustainable digital devices (Harju et al., 2021). However, the environmental footprint of using digital services was not part of the strongly voiced concern over the Earth. It can be assumed that this is partly due to the fact that environmental awareness of the impacts of digitality is not yet widespread among users nor promoted by manufacturers and service providers. People may be aware of the carbon footprint of their diet, appliances, accommodation, and travel, but less regarding the environmental impact of their digital lives (Gnanasekaran et al., 2021). Similarly, this perspective receives little attention in the sustainability strategies of companies, municipalities, and nation-states, following the common approach to digital technologies with a focus on their usefulness, immateriality, and ability to provide solutions (McLean, 2020; Crawford, 2021).

Imagining sustainable digital futures: the method experiment

The starting point of the research project *Imagining Sustainable Digital Futures*, funded by the Research Council of Finland, is that young people's perceptions, hopes, and fears about the future matter because the future concerns them particularly. Yet, their voices often remain unheard in politics and strategy planning despite the growing recognition of their anxiety associated with climate change and environmental problems (Pihkala, 2020; Clayton et al., 2023; Veijonaho et al., 2023). The concept of *eco-digital agency* developed in the project takes up this problem. It aims at fostering curious and fearless imagination to support people's ability to recognise, challenge, and resist the taken-for-grantedness of the injustices and unsustainability in the digitalised society and encourages taking action to achieve alternative futures.

The core of the project was an experimental workshop in which young people used an AI image generator to create images of alternative futures and tell stories of what living in such futures would feel like. The images and stories were displayed in a public exhibition during a theme week on sustainable digital everyday life in May 2024 in Turku, Finland. The methodological reflection of this paper is based on the workshop with seven young participants aged 16-18 and seven pilot workshops with over 80 participants organised in the winter 2023-24.

The interventionist research experiment follows a radical pedagogical approach. Images of alternative futures are created to explore how participatory critical speculation can

spark “raised consciousness” about the bleaker aspects of digital society and the kind of world people want to live in. Inspired by the methods of critical speculation (e.g. Dunne & Raby, 2013) and utopia as a method (e.g. Coté et al., 2007; Levitas, 2013; Salmenniemi et al., 2024), the aim is to break away from the status quo as a means of fostering imaginative capacities and stimulating visions of desirable futures. The workshop aims at being a safer space in which everyone's hopes and fears for the future are heard and opportunities for dialogue are created. Following hook's (1994) entangled pedagogics, the young participants are encouraged to express their opinions, and they are provided with an experience that everyone's voice and thoughts matter and are heard. This is combined with the aims of critical (Freire, 1970) and anarchist (Haworth, 2012) pedagogies to provide a creative space of resistance in which radical agency is fostered to build a fairer society rather than adapting to unjust conditions.

Fostering transformative eco-digital agency?

A major critical concern from the experiment relates to the limits of using AI in imagining alternative sustainable futures. Namely, with the black-boxed and likely biased datasets and classification of images from the past and the present, what kind of images of alternative futures can be created? Further, how is it possible to gain an understanding of the entire AI system and especially its environmental footprint? At the same time, only addressing the ethics and sustainability of AI can make it a viable tool for critical research and participate in the radical re-imagining of AI's technological development and role in society.

The aim of cultivating imagination that allows the emergence of the completely new and previously unimaginable proved methodologically challenging, especially as it was combined with the goal of fostering critical agency that strives to transform society profoundly. Yet, the playful exercise of making images with GenAI resonated positively with the participants and exhibition goers, providing a chance to foster eco-digital agency by critically examining concerns on AI's ethics and sustainability. Multiple lively discussions on today's society and hurdles in achieving the desirable futures took place during the workshop and exhibition. At best, eco-digital agency was fostered with the raised awareness on digital sustainability and when the images and stories of the future gave hope – and potentially acted as catalysts for action.

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