

Navigating the Future: AI's Role in Enhancing Interdisciplinary Team Collaboration

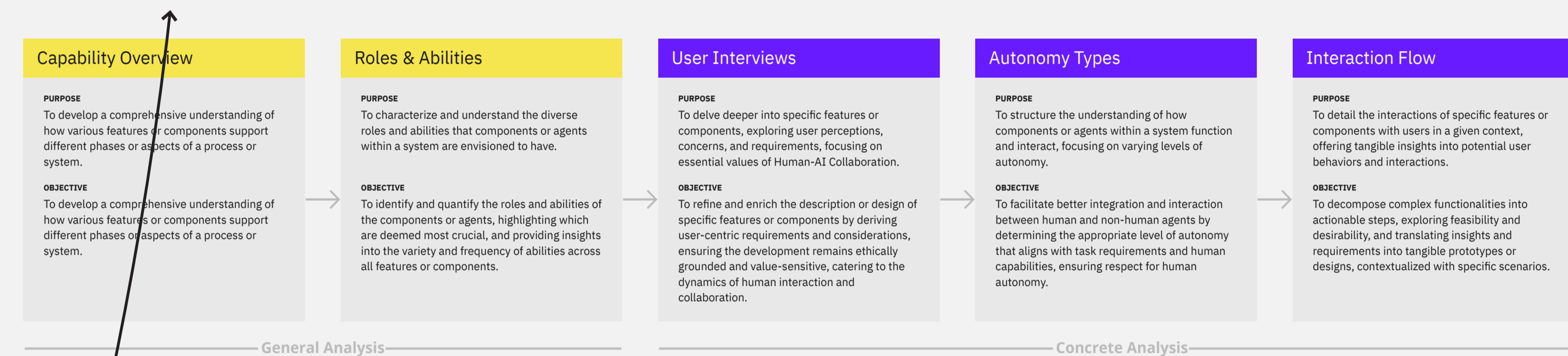
While robots and automation in general have been replacing humans in repetitive and routine labour for many years (Vagia et al., 2016), the role of AI is considered to develop from mere tools to integral teammates (Bradshaw et al., 2007; Rebensky et al., 2022; Rix, 2022), underlined by the emergence of Human-Autonomy Teams (HATs). This transition has been further fueled by recent advancements in the field of Artificial Intelligence. The emergence of advanced large language models (LLMs) for example, have pushed the boundaries of AI capabilities, marking a new era in which machines are able to mimic cognitive human functions (Rai et al., 2019). In an era where human-AI collaboration is on the rise, it is essential to probe deeper into how these teams will function.

Research in this area of HATs is rapidly growing (Seeber et al., 2020), however, most studies are confined to lab settings, emphasising a need for more field research to assess the real-world effectiveness of HATs, especially in the workplace context (Larson & DeChurch, 2020; O'Neill et al., 2022). Thus, this research seeks to address the current limited understanding of the dynamics, complexities, and challenges posed by Human-Autonomy Teams (HATs) within organisational contexts, using ThoughtWorks as an implementation context.

Outcome

6 Future Scenarios based on real-world collaboration challenges of ThoughtWorks Amsterdam

1 analysis framework to fully exploit the value of these concepts, helping to explore the potential of future Human-AI collaboration



24 extracted futuristic concepts, indicating the role of AI to support team effectiveness in Human-Autonomy Teams

EXAMPLE

SUB-CHALLENGE	FEATURE
Creating Visibility	Digital Twins
FEATURE DESCRIPTION Crafting a digital representation of each participant, the AI ensures that the insights and expertise of all individuals, including those who are reticent or not present at all, can be represented and heard whenever needed.	NEAR FUTURE VALUE Existing virtual meeting platforms like Zoom or Microsoft Teams could offer a "proxy participant" feature that allows users to pre-load talking points or ideas. This proxy would then automatically present these points in text form during relevant moments in the meeting, acting as a stand-in voice for the participant.
ETHICAL IMPLICATIONS Ethical concerns may arise related to informed consent and data handling, as it is crucial that each participant agrees to the creation and use of their digital twin. Ensuring the digital twin accurately reflects the person's authentic thoughts also poses ethical concerns regarding representation.	

Pajam Kordian
Exploring the potential of AI to support team effectiveness in interdisciplinary product development
28.09.2023
Master Strategic Product Design

Committee Dr. Peter Lloyd
Dr. Senthil Chandrasegaran
Company ThoughtWorks Amsterdam

