Productivity implications for generative AI role-based prompts as a networked hermeneutic

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As Housley and Dahl (2024) demonstrate, role-based prompts for Generative AI (GenAI) systems are based on vernacular resources of membership categorization and action description, representing a networked hermeneutic of lay and professional sociology. As a Microsoft Human-Computer Interaction researcher, I see three implications for designing GenAI systems for productivity.

First, it may help understand some of the mysteries of GenAI responses, from simple mistakes to the chaos of the 'Wailuigi effect' (the meme-ified term for Jung's 'shadow', in which a GenAI does the opposite of what it is asked; Qureshi, 2023). Just as users' role-based prompting is a networked hermeneutic, so too are GenAI's reflections of ourselves. Knowing the training data and treating the responses to prompts as methods enacting the hermeneutic may improve GenAI *explainability*. This is important to resolving the metacognitive issues of using GenAI systems – calibrating one's ability to craft prompts and evaluate outputs (Tankelevitch et al., 2024) – and is also central to the concept of GenAI co-auditing (Gordon et al., 2023). Understanding GenAI responses by way of the networked hermeneutic may provide for explainability beyond mechanized methods.

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Second, as a synthetic reflection of a networked hermeneutic, GenAI provides the potential for *simulations* of role-based behavior, to be compared with responses from humans in those roles, and thus open new fields of 'technomethodological' inquiry (Button and Dourish, 1996). Such inquiries should not naïvely substitute synthetic personas for real people and assume that the results are either relevant or generalizable. However, there is potential for scaling research into human action that did not exist before.

Finally, understanding role-based prompt behavior and GenAI's responses holds the promise of *facilitating* team collaboration. This could start with systems coaching users to specify interactional stances that will help a GenAI system provide relevant work information. The more complex version is for systems help unpack the interactional stances of other team members when they are not present. This might enable a synthesis of the holistic interactional stances of teams, ensuring alignment to team goals, aiding onboarding, and help team-members and even other teams to understand one another.

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Author biography

Sean Rintel studies the intersection of communication, technology, and work as a Senior Principal Researcher at Microsoft Research. He is currently exploring Generative AI, metacognition, remote and hybrid meetings, and workflows. He is an active editor and reviewer in academic communities.