

ed the need to analyse these narratives in practice.

Within this framework, this paper aims to investigate narratives of risks, hopes and trust regarding the implementation of AI-based systems in healthcare and, more specifically, how people interpret and attribute meaning to the role of AI in breast cancer detection.

Narratives around technologies contribute to shaping the visions, fears and expectations people have around them, as well as personal and professional technological adoption (Bareis and Katzenbach, 2022; Sartori and Bocca, 2023). Specifically, a key dimension in the narratives surrounding AI is the "trust" towards it (Brown and Bahri, 2019; Hallowell et al., 2022), which can favour socio-technical and moral environments where new risk categories are created (Brown and Van Voorst, 2024). In this context, narratives have also been linked to "socio-technical imaginaries", i.e., an ambivalent term indicating both future and normative visions imbued in technological projects (Jasanoff and Kim, 2009), and end users' experiences (Bucher, 2017). Within this framework, we aim to show the contested and generative nature of AI narratives, and how "future individual expectations and trust" are key dimensions in "the study of technology put in context" (Sartori and Bocca, 2023: 446).

Given this scenario, this study provides insights into the visions and tensions surrounding the implementation of AI software programs to detect breast cancer. To do so, we conducted a content analysis of 701 online user comments responding to a New York Times article discussing AI use in breast cancer detection (Barker and Galardi, 2015). After several rounds of coding, we chose to apply Sztompka's trust framework (1995, 1999) to analyse AI narratives, which emerged as deeply interwoven with various forms of trust and distrust towards the medical profession, the U.S. healthcare system, the medical industry and the government. Specifically, findings reveal divergent visions of AI in healthcare, associated with four forms of trust identified by Sztompka: positional, segmental, organisational and technological trust. Findings show that positional trust in AI and physicians varies, with some viewing AI as complementary, others fearing dehumanisation and errors. Segmental trust in the profit-driven U.S. healthcare systems negatively influences attitudes toward AI, as does low organisational trust in medical institutions and governments. Technological trust both drives optimism and scepticism.

Our analysis underscores the need for a balanced approach to AI integration in healthcare, emphasizing collaboration between AI and physicians. Collaborative intelligence is proposed as a model for future practice. Such a framework would require physicians to develop technological competencies while maintaining their traditional skills in empathy and contextual interpretation.

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ROOM B2.2.1

ID 298 - Unraveling AI imaginaries in radiomics: Beyond exoticism, mentalism, and technologism

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Keywords: AI, healthcare, radiomics, exoticism, mentalism, technologism

Sociotechnical imaginaries of 'AI' in healthcare are embodied in the design and practical implementation of AI-based technologies. Our paper is based on STS studies in radiomics (see, e.g., [1], for an overview), a new field of medical imaging analysis that involves extracting large-scale quantitative features using machine-learning (ML) algorithms. Specifically, we have been studying how radiomics is taught – formally and informally – among medical professionals and students at a university hospital in Switzerland, and how novice users interact with the radiomics platform QuantImage ([2]; [3]). The platform allows for the extraction of several types of features from PET/CT images, providing a simple environment that can be further



adjusted for more refined analyses. It enables clinical researchers with no programming background to develop and validate radiomics models using their own data, which can be easily exported from the hospital information system. QuantImage, initially designed as a tool for radiomics research, is currently being repurposed for education in this emerging field. Although the platform itself does not produce communicative actions, our findings show that autonomous agency is routinely ascribed by the participants to the machine, even though it functions as an object rather than an agent [4].

In this paper, building on our studies in radiomics and earlier work on AI imaginaries [5], we critically disentangle three aspects of sociotechnical imaginaries involved in teaching for and about AI in healthcare: exoticism, mentalism, and technologism. First, most of the existing insights and ways of working are obtained from settings in which AI has not yet been incorporated into the routine structures of everyday life, but is rather seen as a novel and unusual object (cf. [6]). The exoticist framing of AI in radiomics uncovers tension with the mundane work routines in which it is eventually embedded. Second, much of the social studies of AI reproduce (intentionally or not) the mentalist conception of AI, based on cognitivist notions of thinking, intelligence, or learning (cf. [7]). Such mentalism of AI in radiomics is connected to the imagery of an isolated single user taking part in individualised 'human–AI interactions'. Third, it is taken for granted that AI is a form of computational technology: AI and its manifestations – e.g., algorithms, neural networks or ML processes – are located inside the machine. Social imaginaries consist of technologist 'use cases/scenarios' that are produced to provide an optimal environment for the technology's operation. Against the backdrop of the three aspects, I will propose a reformulation of AI in healthcare that starts from the publicly observable, situated, embodied conduct in the world of daily life and professional activity, avoiding both the 'academic and theoretical imperialism' [8] and the imperialism of computing [9]. More generally, I will argue that AI is not 'inside the machines' but emerges from the situated organisation of social events in which an agentive artefact's self-sufficiency is constituted and maintained.

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