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Le prisme de l'expérience patient pour comprendre la digitalisation (manquée) d'un service de santé public.

Patient Experience to Understand the (Missed) Digitalization of Public Health Service

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Résumé / Abstract: Healthcare institutions and governments identify the digitalization of medical data as a major asset for healthcare. However, although many countries tried to implement a digital shared medical record, many encountered difficulties. Through the lens of the patient experience, this study aims to understand how pregnant women manage their health records and how they appropriate a new digital tool, called *Mon Espace Santé*, designed to store and share health documents. The research methodology features projective tools from the Design field (cultural probes) and explication interviews as a methodological response to understand how patients perceive value-in-exchange and value-in-use during their pregnancy. While there is real value in the exchange and use of the paper folder, this co-creation of value in the digital folder does not exist. Even worse, there is a destruction of value through the digital platform due to the lack of interest of the medical community over the platform.

Mots clés / Keywords: Value chains, co-production/creation; Design; Technology; Longitudinal research; Mixed method; Patient Experience

Extended abstract:

Until the 2000s, healthcare service digital transformation has been identified as a force to increase clinical outcomes and as a cost-killer. The COVID pandemic crisis has been a game changer in this trend in European public healthcare service, highlighting the prominence of robust health big data centres and information systems to overcome and outpace the virus spreading.

To ensure patient adhesion in new digitalized health ecosystems, European states must increase patient satisfaction by creating frictionless' electronic patient experiences (McCarthy et al., 2020; Kraus et al., 2021). To address the care fragmentation problem, some countries have implemented centralized and nationally shared electronic health records (EHRs) along with other information technologies (Essen et al., 2018). Also EHRs brings several advantages (Antonio et al., 2020; Séroussi & Bouaud, 2020), three successive failures of a shared electronic patient record project occurred in France. Yet, in 2022, the French government launched a new EHR called '*Mon Espace Santé*' (MES), hoping to succeed and accelerate the digital shift of healthcare services.

Digital transformation of healthcare services is enrooted in Transformative Service Research (TSR) (L. Anderson et al., 2013). The value of Service Design nests in its ability to deploy transdisciplinary research fields and be user-centered and empathetic. There is little in the literature regarding the impact of subjective design methods on analyzing and improving complex patient journeys.

This article focuses on lived patient experience as a phenomenological process to understand failures and problems in a complex patient journey (Knaack, 1984). This research explores how patients manage (collect, store, share) their health documents (physical or digital) and what tools they use. From there, it analyzes the healthcare service ecosystem micro-level and the creation of value-in-exchange and value-in-use (Grönroos & Voima, 2013) of a new application designed to manage health documents. Using previous research in Computer Science, Design, and Health in an interdisciplinary perspective as recommended by Anderson et al. (L. Anderson et al., 2013), this study aims to capture the patient experience and understand where value co-creation is occurring to improve the future of digital health services.

This research conducts a patient experience study through an original mix of design and phenomenological methods such as cultural probes (Crabtree et al., 2003; Gaver et al., 1999) and explicitation interviews (Vermersch, 2006). The study focuses on a long-term process, the pregnancy journey. Each pregnant woman is considered as a case to construct a multiple-case explanatory study. Secondary interviews are conducted with health institutions to anchor those women's cases in the care ecosystem. Pregnancy presents an interesting context because it's a long journey with many different relations between patients and practitioners.

This methodology permitted to draw up a portrait of each woman, construct a timeline, and get precise information about how they managed their health documents and how they integrated the MES platform into their journey. The mixed qualitative design produced an understanding of the lived experience of each woman. Three main findings constitute patterns within the data. Cultural probes and interviews analysis highlighted salient moments of experience, *Mon Espace Santé* destruction of value-in-use and value-in-exchange. Finally, a dynamic to understand value-in-use

and then value-in-exchange creation appeared.

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