

## Clinician knowledge and the ascribed function of web-based health care

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Abstract (382 words):

An ecological interview study of two web-based telecare services in the Netherlands is interpreted using concepts from the theory of epistemic trust and artefact function. “Web-based telecare” designates internet-mediated platforms for extramural care: medical self-monitoring by patients at home or on-the-go, which generates data for clinicians; and, delivery of medical knowledge and advice to patients, usually in an automated way that requires no specific work on behalf of clinicians. (Clinicians are often involved in the setup of the systems that deliver knowledge and advice, providing its “content,” but are not directly involved in the delivery of that content.) The service can be thought of in the most general sense as a platform for information or knowledge transfer, with both clinicians (physicians, specialists, and physiotherapists) and patients as producers and recipients in that transfer. It therefore serves an epistemic function. Beyond this broad definition, however, different stakeholders form more specific expectations about what the service is *for* and what it is *supposed to do*, corresponding to the more specific functions they ascribe to it.

In this study we conducted semi-structured interviews with clinicians, patient users, telecare company owners, and insurance company employees on themes related to trust, function, and normative content. I describe two findings here. First, clinicians’ attributions of function imply expectations about the type of knowledge they think they can, or should be able to obtain from the service, i.e., their epistemic trust in the service. Second, clinicians’ attributions of function substantially diverge from those of patients and telecare company owners. These results are interesting because they suggest that (1) the epistemic value of the service for clinicians is conceptually linked to the functions that they attribute to it, and (2) the key functions ascribed to the service differ among different types of users and developers. Taken together, these two interpretive findings could undermine the epistemic value for clinicians of the telecare services studied here. Whether they do so depends on an additional premise, namely that the epistemic value of the service to clinicians depends on an overlapping consensus about its functions. In conclusion, I discuss the reasons why this might or might not be the case. In particular, I focus on examples of “misuse” by patients, leading to a failure to fulfill clinician expectations in a way that undermines knowledge.