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End-users' involvement in the design and development of medical technology devices: The manufacturer's perspective

Selim Hani^{1,2} and Nathalie de Marcellis-Warin^{2,3,4}

¹McGill University, Canada

²Ecole Polytechnique de Montréal, Canada

³CIRANO, Canada

⁴Harvard University, USA

Background & Aim: It is clear through the literature and newly implemented regulations that the involvement of end-users in the development of Medical Device Technologies (MDTs) is a matter of growing interest. Many advantages are perceived by this involvement like an easier implementation, a faster acceptance, a lower resistance to technology and an overall safer healthcare service provided. However, this involvement is often perceived by manufacturers as imposed and its application comes with a series of barriers. In this research we will try to identify manufacturers' perceptions regarding this involvement and underline their concerns and vision.

Methods: We conducted in-depths semi-structured interviews with 22 participants representing major MDT manufacturers key-players in the field. Each interview lasted an average of 1h and 15 minutes and participants were asked about their perception regarding end-user involvement in MDT development processes, ranging from the criteria of selection of the end-users, the forms of involvement, the potential impact of this involvement as well as the barriers, concerns and skepticism regarding it.

Results: It is clear that even though the involvement of end-users in MDT development process is often considered as a positive step towards safer healthcare services, manufacturers still show some form of skepticism towards this initiative. They question end-users' maturity and prefer to deal with lead-users, they point out several barriers in regards to project duration, costs, administrative complications, but admit advantages regarding an easier subsequent implementation of MDTs and an easier acceptance of their outcome in the market.

Conclusion: End-users' involvement in MDT Development processes is still conducted in an ad-hoc manner but its standardization can be promising and contribute towards an optimization of the development processes. Additional works have to be done mainly regarding end-users selection criteria, levels of involvement and forms of implication.

Biography

Selim Hani has received his Bachelors in Neuroscience from McGill University in Montreal, a Master's degree in Industrial Engineering and a PhD in Industrial Engineering from the École Polytechnique de Montréal and the University of Montreal. With a multidisciplinary background merging healthcare and technologies he has focused his research on the field of healthcare technologies in an aim to contribute to the development of this particular field. Assistant Professor at the American University of Beirut, he is active in the field of entrepreneurship and healthcare simulation, working to breaking barriers to the initiatives in that regard.

sh170@aub.edu.lb

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