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DESIGN FOR SAFETY: EPIC PILLARS FOR GAMES IN HEALTHCARE

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What makes technology now truly empathic? How to develop designs that matter?

We apply the EPIC for change model for persuasive and empathic designs. EPIC stands for:

- Engagement: Creating experience, flow using persuasive strategies and triggers in development, using positive psychology concepts;
- Personalization: How to personalize technologies to various user profiles and usage context (e.g. location, current activity)?
- Integration: How to create technologies that are implementable in practice and environments, and adaptable to people?
- Connectivity: How to develop social networks for self-organizing communities?
- Change: Refers to individuals, communities, and society; creating smart environments with persuasive technology for solving societal challenges.

This EPIC model grounds the design of persuasive technology for complex healthcare situations.

Case study: safety first, dilemmas in zoonotic outbreak management

Animal-human, or zoonotic, transmission of communicable diseases carries considerable economic and public health burdens that could increase exponentially as antimicrobial resistance grows worldwide and new zoonoses emerge. At least 60% of all human diseases and 75% of all emerging infectious diseases in the past six decades were caused by zoonotic pathogens. Currently professionals are not supported in dealing with zoonotic outbreaks or in prevention of outbreaks in high-risk environments. Therefore, we developed a game-based learning environment, eZoon, to: (1) support risk communication of professionals in decision making for infection control, and (2) to enhance their skills to communicate empathically with patients and the general public. eZoon is iteratively designed in co-creation with end-users and stakeholders create trust, engagement with personalized technology. The theoretical foundation for the design and implementation of eZoon rests solidly in the holistic CeHRes-Roadmap that integrates the EPIC concepts. Starting with a contextual inquiry, and value specification, functional requirements are documented using Volere templates. A working prototype of eZoon is currently being designed in co-creation with stakeholders and target group, following our EPIC design approach. To attune the information to different users, personas and use-case scenarios are developed based on the contextual inquiry results to serve as a linking pin in the design process, as well as to support the agile development process. Within the game, users will be asked what to do during an outbreak, what they think the implications of their decisions are, and how to communicate with patients / the general public to create awareness and to support self-care. While playing, a smart algorithm evaluates the players learning progress and provides real time feedback to stimulate both reflection-in-action while playing the game and reflection on-action after playing the game.

Biography

Lisette is director of Center eHealth& Wellbeing Research at the University of Twente and a full professor Persuasive Health Technology at University of Twente, adjunct professor at University of Waterloo (Canada) and senior researcher at University Medical Center Groningen.

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