

EMBRACING COMPLEXITY

UNTANGLING MULTI-STAKEHOLDER PERSPECTIVES IN DIGITAL MENTAL HEALTHCARE

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Digital mental healthcare constitutes a complex area for development of novel technological solutions. Designers are frequently forced to deal with requirements posed by a range of different stakeholders with particular needs, goals and interests which may either align or conflict. In search of an inclusive approach for assessing the needs and requirements of this diverse socio-technical landscape, we have developed a novel user research framework heavily drawing on elements from the fields of Software Engineering and Agent-Based Social Simulations.

1. Analyse the problem: Focus group participants are asked to formulate key problem areas and perceived issue that they deem to be in need of attention. This results in a list of hypotheses to be tested and a definition or relevant experimental factors and model outputs.

3. Define key activities: Participants are required to list all the potentially relevant activities (use cases) and interactions that might occur between the actors (under consideration of their roles in the system modelled) included in the scope.

5. Define agent stencils: The purpose of this step is to develop agent templates by listing the different states that the actors identified in the defining scope step can take on. The transitions between these states, and what triggers them (i.e. decision-making processes of individual agents) must also be made clear.

7. Define interactions: In this step the key focus is placed on defining sequences of interactions that take place between individual agents and between agents and objects. Participants are asked to depict agents and objects involved in specific use case realisations. This includes the sequence of interactions that needs to take place to carry out the functionality of every given use case.

2. Define scope: This step requires participants to list key actors (i.e. the specific roles of individual agents), relevant elements of the physical environment and the social as well as psychological aspects implicit in the problems defined in the previous step.

4. Define archetype stencils: In order to represent a relevant population, participants are tasked to come up with a categorisation schema that will allow to separate a simulated population into behaviourally different groups.

6. Define objects stencils: This is the same as defining agent stencils but for objects that have been identified in the scope table as part of the physical environment. This step might not be required for all object categories.

8. Define artificial lab: Finally, participants are asked to look at their model as a whole and try to define its global functionalities (macro level view). This includes the variables that ought to be tracked in order to gain insight about the issues defined during the problem analysis step of the framework. Once done, participants will end up with a rich model of a complex social setting.