

INCREASING MOTIVATION IN EHEALTH THROUGH GAMIFICATION

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INTRODUCTION

eHealth can help to alleviate the increasing demand for elderly care by supporting a healthier lifestyle for elderly that extends their time of autonomy¹. However, adherence to technology and therapy is low and decreases over time². Gamification – the use of game design elements in non-game contexts³ – was identified as promising for the motivation of elderly⁴, hence there is a need for **design guidelines** to apply gamification.

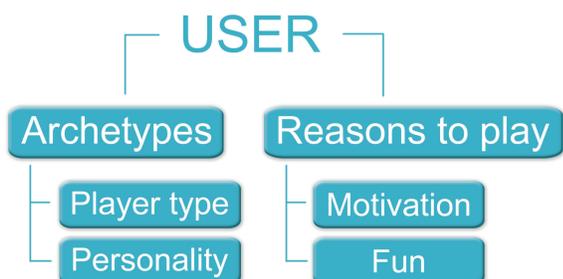
METHOD

To develop a view of gamification, in concept and in practice, a literature study was conducted. In the search for methods to increase long-term engagement, theories on motivation from game design and psychology were explored, as well as practical foundations to successfully incorporate gamification in eHealth for elderly.

RESULTS

Gamification as a concept

- No consensus on a definition of gamification
- There is no univocal way of practice
- The few available guidelines are inconsistent
- There is no information on how to approach elderly
- The importance of good game design is often forgotten
- Intrinsic motivation is reinforced when content is tailored to the needs of the user. To develop the right content, we need insight in the user in the form of methods to describe people regarding their preferences for game elements.



Gamification in practice

- We distinguish two variants in the application of gamification:

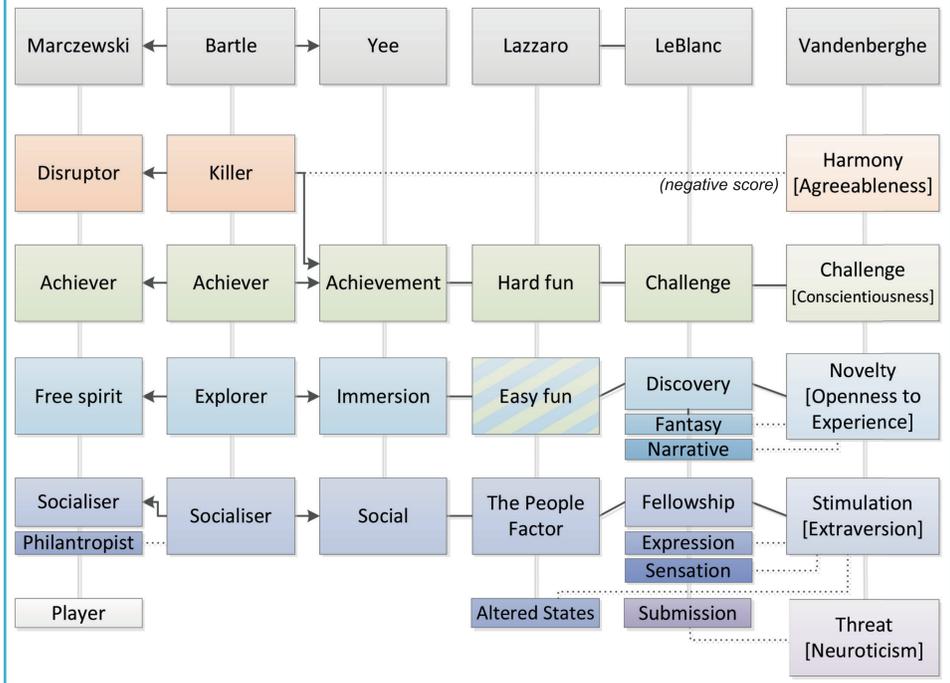
BUSINESS APPROACH

- Used for marketing, customer loyalty, employee motivation
- Addresses short-term motivation by making use of extrinsic rewards and conditioning, diminishing motivation over time
- In practice superficial: common game elements are points, badges and leaderboards
- Provides tangible guidelines for implementation, therefore a popular method
- Negatively connoted as pointsification, exploitation-aware, the electronic whip

SCIENTIFIC APPROACH

- May be used for more 'serious' purposes, such as healthcare and education
- Frameworks developed using founded theories such as the Self-Determination Theory from psychology and game design principles such as Flow
- Attempting to address intrinsic motivation as much as possible
- Does not yet provide guidelines for implementation, or lacks validation

Known approaches for classifying users are player types (Bartle, Marczewski)⁵, gaming personality (Vandenberghe)⁶, player motivation (Yee)⁷ and kinds of fun (LeBlanc, Lazzaro)⁸. These approaches are heavily linked, as illustrated in the chart.

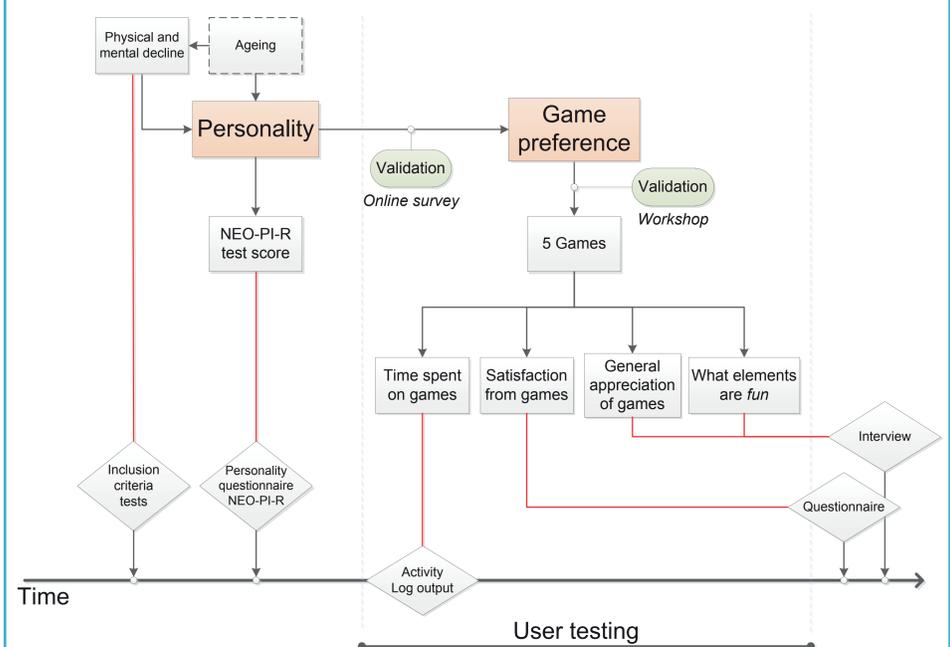


CONCLUSION

Gamification may be more successful in eHealth when it is applied in such a way that it improves the user experience by providing intrinsically motivating content. In further research we choose to contribute to the 'scientific approach' towards gamification by exploring founded theories from psychology and game design to create a framework, which is our first effort in setting up design guidelines for gamification in this context.

ONGOING RESEARCH

The first step towards such a framework is to explore the potential of the theory by Vandenberghe, which moves away from stereotypical classifications and incorporates personality to create a profile instead. The relationship between personality (described by the Five Factor Model) and game preference is currently researched.



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