

## Volume 16 - Issue 3, 2016 - Cover Story

### The Role of Gamification and Engagement Design in the Future of Healthcare



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Gamification is on the rise right now as a powerful tool to change behaviour - not only in healthcare but in many fields, such as education and business. However it can be seen and experienced in all its glory in healthcare, and I believe it will be crucial for the very near future.

First of all, what is gamification? A crystallised definition about it was made, amongst others (Dixon et al. 2011), by Professor Kevin Werbach, from University of Pennsylvania (Hunter et al.). In 2012 he created the first Coursera course on the subject and it was a huge success. That first definition was a bit complex for the general public but a takeaway message became popular: "the use of game design elements in non-game contexts."

Two years later Werbach offered a redefinition of that concept saying that gamification "should be understood as a process. Specifically, it is the process of making activities more game-like" (Werbach 2014).

The importance of this redefinition is that it connects gamification with what he calls persuasive design, and what I call engagement design. In my experience this new concept is a natural evolution and does not exclude gamification at all. On the contrary, it amplifies it. Being so, engagement design focuses on building extraordinary and unique experiences with the purpose of engaging customers (they could be patients or employees, for example) and ensuring their involvement in following and completing a journey previously designed and co-created with them.

When we bring engagement design and gamification to healthcare we find a happy couple that can flourish. On one hand, we are all aware of chronic diseases being a major cause of healthcare costs - half of the adult population is suffering from one or more chronic conditions in the United States. On the other hand, according to Pew Internet Project's research related to health, 72 percent of internet users say they looked online for health information within the past year (Pew Research Centre 2013). The most commonly-researched topics are specific diseases or conditions, treatments or procedures and additionally patients look for other ways of interaction with the healthcare systems.

#### Gamification in Healthcare

Mixing technology with need creates a product. Understanding the final user's motivations, fears, doubts and happy moments helps us develop a system which not only works and makes life easier, it makes "things that you have to do everyday" in your life, more fun to do (in the case of taking the stairs), and easier to bear in (the case of diabetes).

This is why I believe engagement design and gamification will be key to:

- Increasing adherence to treatment;
- Build patient's awareness about his/her own role in treatment;
- Contributing to patient's recovery and especially his/her emotional state;
- Helping in tracking various kinds of aspects;

- Helping rehabilitation;
- Helping in all matters related to the prevention of diseases and build-up of long-term healthy habits.

I see this already happening in healthcare. That's why there's a boom on mHealth. A pilot study in Toronto showed that adolescents with diabetes (who always have to track their glucose) that were using an app that awarded them points and had a ranking, already increased their satisfaction by 88 percent (Carfazzo et al. 2012). They have to do this everyday! Let's make it a bit more interesting and a bit more entertaining as it's very necessary.

The strength of engagement design and gamification derives from a radical change in the logics of the whole process, which consists in giving more power to patients. As well as what has happened in general consumerism, where final customers got the power to be much more in control of brands and products as never seen before, engagement design and gamification enable patients to push for changes. This will be a bottom-to-up change and can only be conveyed through the large scale adoption of new technologies as we are already experiencing today.

### **Creating and Adapting: Healthcare Professionals and Tech**

Another big change lies in the role of health professionals developing these technologies. There are many mHealth apps using healthcare professionals to assist engineers and technicians to develop apps. However, I'm seeing a change starting in universities, where they encourage young nurses and doctors to become entrepreneurs, and join start-ups. As a professor who has been teaching nurses how to find creative solutions and in engagement design, I am really proud to say that the last group of nurses that graduated who had had classes with me, presented more tech-related solutions than any other year.

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My experience as a nurse has been vital in all the projects I have been involved and this is a seed I try to plant among my students in academia. You, who work in the field, are the most skilled and prepared to detect real needs, make life easier for patients, and to change behaviour for good. I foresee that this combination between health professionals and technology will bring excellence to healthcare at a much larger scale than ever seen until now.

### **Biography**

Anna Sort is a qualified nurse and has a master's degree in cognitive systems and interactive media. She specializes in Health IT and user engagement design, and lectures at institutions such as the University of Barcelona and Stanford University. She is the co-founder of PlayBenefit ([www.playbenefit.com](http://www.playbenefit.com)), a start-up based in Barcelona that helps public and private organisations to bring gamification and engagement design to their core.

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