

## Chapter 18

# The Development of a Gamified System for Health Activism as a Graduate Student Project

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### ABSTRACT

*This chapter presents a case of the development, implementation, and iteration of a gamified, graduate-student-driven, collaborative class project about community health activism. The project was founded on three principles: (1) people define, interpret, and modify the meanings of health and wellbeing based on past experiences and in diverse contexts; (2) both learning and iterative design are adaptations to problems; and (3) knowledge is created through the transformation of experience. Prior to the class project, the researchers designed a web-based platform for people to publicly recognize and motivate one another for being healthcaring, exhibiting positive attitudes and behaviors toward the health and wellbeing of themselves and others. This chapter shows how students, researchers, and the community refined a definition of healthcaring while trying to change people's health attitudes and behaviors through gamification. After contextualizing the project and discussing its foundations, the chapter offers a discussion on its four phases and results.*

### INTRODUCTION

Health activism is action on behalf of health-related causes that goes above and beyond the norm (Martin, 2007), often challenging those perceived as responsible for social injustice or health inequality in the process. Obstacles that health activists face include individualism, unsupportive political environments, and commercial and corporate interests (Laverack, 2012). The need for health activism today is obvious. Structural strains such as food deserts (Walker, Keane, & Burke, 2010) and long work hours (Virtanen et al., 2012) intersect with personal health behaviors such as lack of exercise to act against healthy lifestyle choices and outcomes, leading to escalating rates of chronic diseases and conditions, including heart disease, obesity, and diabetes (Centers for Disease Control and Prevention [CDC], 2015).

DOI: 10.4018/978-1-5225-0513-6.ch018

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Additionally, these factors intersect with other social structures. For example, governments play a key role in protecting public health and safety (Frieden, 2013) through programs like implementing city-wide nutrition standards (Lederer, Curtis, Silver, & Angell, 2014) and mandating that fast food menus show calorie information (Dumanovsky, Huang, Bassett, & Silver, 2010). Such top-down approaches to health promotion aim to uniformly benefit large numbers of people, although the national data highlighting significant health disparities and inequalities among race, class, and other groups indicate that many are left out (CDC, 2013). Other people object to top-down approaches on philosophical grounds by arguing against perceived government intrusion in their lives and liberties (Harsayani, 2007). Purveyors of unhealthy food products employ flavorists to maximize consumers' favorable responses to artificial tastes and smells (Schlosser, 2001), and fast food advertising all but ensures that people, especially kids, develop a relationship to the food and the companies selling it. Fast food restaurants spent \$4.6 billion on advertising in 2012, almost half of that specifically targeting children, while in the same year McDonald's demonstrated its market dominance by spending 2.7 times as much to advertise its products than all bottled water, milk, fruit, and vegetable advertisers combined (Yale Rudd Center, 2013). It is no wonder that changing people's health behaviors is hard; they experience structural inequalities, exhibit individual resistance, and face the challenge of shrugging off corporate socialization efforts, not to mention the fact that, to many, unhealthy food tastes good and routine is easy, even preferable to change. The point: top-down approaches to health promotion are confronted with opposition due to various factors and face the difficulties inherent in employing blanket solutions. Top-down approaches are typically divorced from everyday health activism.

Bottom-up approaches to attitudinal and behavioral health change are more closely intertwined with health activism in forms similar to grassroots environmentalism (see Bullard, 1993, 2000). These "people-centered" (Biehl & Petryna, 2013) approaches are positioned to avoid top-down pitfalls and can subvert the interests of oppositional corporate and political voices on local levels (Zoller, 2005). Additionally, innovative approaches to effecting health change are likely to be developed from the bottom up because bottom-up innovation is often apart from or in direct opposition to the dominant healthcare culture. To the extent that innovative ideas are perceived as threats by the dominant health, political, financial, or other institutional culture, they are unlikely to receive funding or attention, pushing them further away from the mainstream and toward the local level (Bergman, Markusson, Connor, Middlemiss, & Ricci, 2010), where they are more likely to become embedded in people's everyday lives.

One core feature of 21<sup>st</sup> century activism representative of such embeddedness is a participatory shift into the digital realm. Although digitally- or technologically-mediated activism often entails low-risk, low-cost participation with potentially divergent outcomes and engagement levels (Rotman et al., 2011), this relatively new avenue for health activism has already yielded impressive results (e.g., Flicker et al., 2008). Digitally-mediated health activism is a core feature of this study, particularly as it intersects with educational contexts and gamification, the relationships of which will be explored in the following section. Health technologies, from Fitbits to the hundreds of smartphone apps on the market, can promote health activism, but are tailored to the individual and their physical improvement over time. Connections to the larger social world of health and wellbeing are often limited to badges and leaderboards, common game elements entailing low levels of participation that are easily ticked off the gamification design checklist. Health technologies that link individuals to their communities and that promote collaboration and knowledge sharing over individual competition and metrics offer relatively unexplored, and potentially fruitful, terrain.

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