Lit to Quit: How a mobile game might help you stop smoking!\(^1\)

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Lit to Quit: How a mobile game might help you stop smoking!

Tobacco use may have decreased in recent years, but according to the Robert Wood Johnson Foundation (2009) it is still the leading cause of preventable death in the United States. A successful intervention could have an immense public health impact, but where to begin? Among adult smokers, 70% report that they want to quit completely, and more than 40% try to quit each year (World Health Organization, 2008). When it comes to smoking reduction, this is the low-hanging fruit! These people already want to quit, but haven't managed to do so. We believe that we can help them achieve their goals.

Lit, an mobile game funded by a Robert Wood Johnson Foundation’s Games for Health grant, hopes to put a replacement therapy with the emotional and physiological effects of smoking in your pocket. Nicotine can be experienced as a stimulant or a sedative (Donovan & Marlatt, 2007). Lit does the same through its two modes, Rush and Relax. These modes use color, sound and game design challenges to excite or relax the player. However, the game's mechanics center on the innovative game element of breath control. The game requires players to breathe in certain ways in order to play. Different breath patterns promote excitement or relaxation. If our research bears out that Lit can mimic smoking's effects, smokers could start reaching for their mobile device instead of their cigarettes.

In this presentation, you'll get a chance to see our game designs in action! In Rush mode, the player is a star pilot, collecting dust and gas from the cosmos to create a new star. The player must sweep the right colors of gas into her collecting scoop while avoiding crashing into a star, being sucked into a black hole, or running out of fuel. The pilot can escape from black holes only by activating their ship's override. She does this by performing "Breath of Fire," a form of targeted hyperventilation, which should affect physiological responses similar to nicotine's stimulant effect. In Relax mode, on the other hand, players breathe more slowly and deeply than usual, which promotes relaxation (Gilbert, 1999). The player's breath appears in the game as a breeze which raises a swarm of dust particles from the earth into the sky, while he avoids obstacles and hits power-ups by moving the phone gently.

By the time of the conference, we will also have preliminary play-testing results and physiological measures for the game's first prototype. We are collecting high-resolution electroencephalographic (EEG), skin conductance, and heart rate measurements to learn about the physiological impact of our game. For the emotional impact of playing Lit, we are using data from a self-assessment mannikin rating scale (Lang, 1980) as well as from an integrated, custom-designed self-reflective activity. Using this information, we will discuss how the breath patterns in our game relax or stimulate the players, and how the empirical data we've collected will in turn impact our design.

We expect that this talk will be of interest to designers and researchers alike, especially those with an interest in mobile games, smoking reduction, or alternative interfaces. Come see how Lit might help smokers quit!

Attendees will learn about designing games for health that impact the player emotionally and physiologically, not just cognitively. We'll discuss how color, sound, interactivity, and game...
design challenges can affect players. However, the emphasis is on breath control as a crucial new piece of our design toolkit! A month later, we hope that attendees will remember just how much of an impact breath control can have on players' minds and bodies. They will leave with ideas about why it's a challenging and worthwhile thing to do, and how it can be applied to further innovations in health game design.

References


