

# Can gamification transform lives?

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## Can gamification transform lives?



12th April 2013

Articles

Dr Sylvester Arnab discusses whether gamification has long-term benefits for both the individual patient and the pharma industry. Most governments recognise and emphasise on the significance of public health programmes in reducing the prevalence of...

**Dr Sylvester Arnab**

### Serious Games Institute

*As our digital and social media focus month continues, Dr Sylvester Arnab discusses one of the industry's buzzwords of the moment, gamification, and questions, 'Can a game really change an individual's life?'*

*"Motivation is what gets you started. Habit is what gets you going."*

Jim Rohn, American business philosopher.

Most governments recognise and emphasise on the significance of public health programmes in reducing the prevalence of physical and psychological health complications. The general public should be more aware of, and made accountable for, their health and wellbeing in order to prevent health complications due to unhealthy lifestyle. The solutions by which awareness is raised, attitudes and behaviours are transformed and positive habits are nurtured should therefore be improved, which could potentially reduce pressure on public health expenditure in the long run.

***"However, individuals' motivation to change is the most significant obstacle in health promotion and wellness."***

However, individuals' motivation to change is the most significant obstacle in health promotion and wellness. Not only is it important to motivate individuals to engage but it is also crucial to sustain engagement towards promoting long term benefits. There is an increased use of digital technologies, such as games to initiate and sustain engagement across the healthcare sector, where the focus on tackling the attitudes and behaviours that underpin chronic conditions has seen games deployed to wide audiences. Serious games (SG), technologies developed for serious / non-entertainment games, have become increasingly popular with games such as America's Army or Code of Everand reaching large number of players and engaging them for long periods of time. SG as positive technology capitalises on the engaging characteristics of gaming and its ability to facilitate in-game triggers and measures that may provide valuable insights on players' knowledge and behaviours. This provides an opportunity for individualised feedback and personalised support to be designed towards nurturing positive emotions, encouraging positive attitude and behaviour and promoting optimal human functioning. Effective behavioural and attitude change can be encouraged by taking personalised motivations and needs into consideration instead of only presenting generic information about health effects.

Some important scientific and empirical studies have been undertaken towards establishing the scientific validity of a game-based approach. For example, controlled trials for game-based intervention showed how Re-Mission could support medication adherence in children with cancer<sup>1</sup>. The Playmancer game addresses physical and mental rehabilitation training / behavioural change and was awarded the Best European Health Serious Game in 2011. Recent studies include controlled trials for a game called PR:EPARe, which shows positive outcomes in changed attitude towards the issue of sexual coercion and

pressure in adolescence relationships<sup>2</sup>.

Games' ability to reach and engage large number of players for long periods of time provides an opportunity for longitudinal study on behavioural impact to be carried out, where vital user data can be recorded, monitored and analysed continuously. The challenge is how to best and ethically capture the potential wealth of data and utilise the analysis to provide valuable insights, which could potentially promote self-management and regulation. This presents an argument for a move towards greater gamification – the use of elements of games as part of positive technologies in everyday life – to improve quality of life and promote positive attitude and behaviour. Actionable steps to overcome personal challenges can be designed by exploiting our natural tendency to react positively to entertainment and the competitive nature of most games. Healthier activities in any number of areas can be initiated: losing weight, sleeping more, making healthier food choices, improving fitness, monitoring health metrics, and medication compliance.

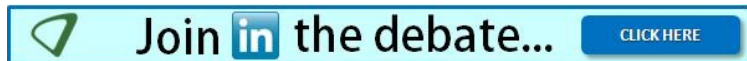
***"Games' ability to reach and engage large number of players for long periods of time provides an opportunity for longitudinal study on behavioural impact to be carried out..."***

Most of the activities will however require individuals to embrace delayed satisfaction, where the reward may be as elusive as the prevention of a chronic condition. With this perspective, gamification allows rewards and incentives to be used to sustain positive engagement. The fundamental fact of motivation is that we cannot be forced to change our behaviours. Behavioural change may be initiated by extrinsic sources of motivation, or external factors that influence how we behave<sup>3</sup>. Intrinsic motivation and positive habit may be nurtured through sustained engagement, where personal incentives and rewards for healthy behaviour could be discovered. For example, the Monster Manor gamification programme involves parents and clinicians in the "playful" and "incentivized" ecosystem aiming to motivate children with Type 1 Diabetes to check their blood sugar regularly. A healthy and social community is promoted by the HealthSeeker game utilising on competitions and recognition, where adults issue health challenges to each other through Facebook. Inspired by the success of Farmville, pharmaceutical brand Boehringer Ingelheim released their own game- Syrum aiming to demonstrate the brand's continuous commitment in research and innovation and to educate the public on their product development process.

Serious games and gamification thus present an opportunity for the engaging mechanics and dynamics of game-play to be exploited to facilitate the recording and reasoning of large-scale health and wellbeing data. By better understanding individual's knowledge, attitude and behaviour and assessing his / her progress continuously, personalised feedback and support towards a healthier lifestyle can be provided. Gamification as an enabling tool may provide a complete solution that will ensure behavioural transformation towards a healthier society. Multidisciplinary research and development activities in this domain play a key role in providing the evidence needed to consider the value as a solution.

#### References

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#### **About the author:**

Dr. Sylvester Arnab is a Senior Researcher leading the Wellbeing research strand at the Serious Games Institute, UK. His research interest is in the use of interactive technology and gamification in various domains. He is a founding member of Serious Games Society ([seriousgamesociety.org/](http://seriousgamesociety.org/)) and he is currently project managing the coordination of the R&D work package within the EU-Funded Games and Learning Alliance (GALA – [galanoe.eu](http://galanoe.eu)) network as well as the various development projects, such as a game development for Relationship and Sex Education.

Sylvester has various publications within the area of virtual worlds and simulation and he has published an edited book in Serious Games for Healthcare.

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