



Serious Games: Driving Results for Public Sector Organizations

What are serious games?

Serious games integrate game mechanics into non-game activities and processes. It is a proven, powerful strategy for engaging, influencing and motivating diverse groups of people (Bunchball, 2015). It inspires action, participation, collaboration and engagement by target audiences.

We have all experienced serious game mechanics while playing any type of game (i.e. boardgames, online games). These mechanisms can be particularly motivating to keep people playing when a task is stimulating or provides some degree of challenge. For even greater motivation, a gamified task will involve a social element. Players are energized when they collaborate and are recognized by their peers.

How is it changing the world around us?

Serious games are proving to be an excellent means of engaging people and motivating them to change behaviours, learn new things, develop useful skills and even solve major problems. Today, some business schools are starting to take gamification quite seriously, as shown by [Wharton School of Business](#), and [MIT Sloan School of Business](#). In the public sector, [Deloitte](#) and [McKinsey](#) are among the leaders who are using gamification to create real change and better serve their clients. [Sun Life Financial](#) addressed a critical financial literacy problem to help people save enough for retirement.

[David Baker](#), a computational biochemist whose [laboratory](#) came up with the game *Foldit*, in collaboration with the University of Washington's Center for Game Science, was able to crowdsource the help of online collaborators. *Foldit* has achieved [results](#) more accurate than multiple computer-generated refinements that have been in development for years.

Furthermore, the technique is increasingly used in government and public sector organizations.



United States: The US Defense Acquisition University, a learning centre for the United States military, developed many games, including a game to help employees identify fraud.

Australia: Consumer Affairs Victoria (Australian state's consumer affairs regulator) developed Party for your rights to help young people learn about their rights as consumers, in turn saving thousands of dollars in what would have normally been spent on advertising.

Sweden: Stockholm achieved major improvements in road safety through their Speed Camera Lottery system. Drivers who drove below the speed limit earned a chance to win the money collected through fines imposed on speed violators.

Why are serious games effective?

Although it might seem a little redundant to say that playing games is fun, it involves some important elements that contribute to the appeal of gaming:

- **Involvement/engagement** is one. A game, or a gamified system, involves play where the participant has the opportunity to become actively involved by making decisions and affecting the outcome, in contrast to being a passive reader or observer.
- **Problem-solving** is also often (but not always) instrumental in gamification, and this can be as simple as the Angry Birds game or more complex role-playing games. Embarking on missions, overcoming obstacles and solving puzzles can be very rewarding experiences, and that means fun for those playing.
- When playing multi-player games, there is the element of inspiration associated with group play and/or **socialization**, which adds to the fun.
- Achieving something with peers, or vanquishing others, or just getting through a challenge with others has been [shown in studies](#) to be very gratifying. Games are **rewarding**. In most cases, games offer some kind of reward, be it extrinsic compensation (trophies, points, status, etc.) or intrinsic gratification (pride, the thrill of play, joy, etc.).

Looking ahead to the future

Horizons is not the only organization to be looking at serious games within the Government of Canada. The Royal Canadian Air Force has been applying gamification successfully in [pilot training](#). In British Columbia, learning games have been created by Employment and Social Development Canada (ESDC) to teach key lessons about occupational health and safety. ESDC is also using online games to teach its employees about document security protocols. The innovation lab at Natural Resources Canada has also engaged in gamification. Furthermore, the Canada School of Public Service has been using serious games in its courses.

As part of Horizons' experimentation mandate, the organization is striving to innovate and explore novel tools to achieve results, and have started to apply gamification to various projects (see our blog on GCconnex).

For more information check out horizons.gc.ca or visit us on [GCpedia](#) and [GCConnex](#).