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Outline

* Introduction
* Background into gamification
  + Gamification of Science
  + Taking scientific ideas and gamifying practice
  + Integration with teaching
* Summary

Since [gamification](https://www.growthengineering.co.uk/gamification/) has been recognised as a powerful engagement tool, it has almost become a standard feature of software design.

Though the term "gamification" first appeared online in the context of computer software in 2008,[[94]](https://en.wikipedia.org/wiki/Gamification#cite_note-94)[[a]](https://en.wikipedia.org/wiki/Gamification#cite_note-98) it did not gain popularity until 2010.[[98]](https://en.wikipedia.org/wiki/Gamification#cite_note-99)[[99]](https://en.wikipedia.org/wiki/Gamification#cite_note-100) Even prior to the term coming into use, other fields borrowing elements from [videogames](https://en.wikipedia.org/wiki/Video_game) was common; for example, some work in [learning disabilities](https://en.wikipedia.org/wiki/Learning_disabilities)[[100]](https://en.wikipedia.org/wiki/Gamification#cite_note-101) and [scientific visualisation](https://en.wikipedia.org/wiki/Scientific_visualization) adapted elements from videogames.[[101]](https://en.wikipedia.org/wiki/Gamification#cite_note-102)

The term "gamification" first gained widespread usage in 2010, in a more specific sense referring to incorporation of social/reward aspects of games into software.[[102]](https://en.wikipedia.org/wiki/Gamification#cite_note-103) The technique captured the attention of venture capitalists, one of whom said he considered gamification the most promising area in gaming.[[103]](https://en.wikipedia.org/wiki/Gamification#cite_note-fun-104) Another observed that half of all companies seeking funding for consumer software applications mentioned game design in their presentations.[[24]](https://en.wikipedia.org/wiki/Gamification#cite_note-sjmn-24)

Several researchers consider gamification closely related to earlier work on adapting game-design elements and techniques to non-game contexts. Deterding et al.[[3]](https://en.wikipedia.org/wiki/Gamification#cite_note-deterdingdefinition-3) survey research in [human–computer interaction](https://en.wikipedia.org/wiki/Human%E2%80%93computer_interaction) that uses game-derived elements for motivation and interface design, and Nelson[[104]](https://en.wikipedia.org/wiki/Gamification#cite_note-105) argues for a connection to both the [Soviet](https://en.wikipedia.org/wiki/Soviet_Union) concept of [socialist competition](https://en.wikipedia.org/wiki/Socialist_competition), and the American management trend of "fun at work". Fuchs[[105]](https://en.wikipedia.org/wiki/Gamification#cite_note-106) points out that gamification might be driven by new forms of [ludic interfaces](https://en.wikipedia.org/wiki/Ludic_Interfaces). Gamification conferences have also retroactively incorporated simulation; e.g. [Will Wright](https://en.wikipedia.org/wiki/Will_Wright_(game_designer)), designer of the 1989 [video game](https://en.wikipedia.org/wiki/Video_game) [SimCity](https://en.wikipedia.org/wiki/SimCity_(1989_video_game)), was the keynote speaker at the gamification conference Gsummit 2013.[[106]](https://en.wikipedia.org/wiki/Gamification#cite_note-107)

In addition to companies that use the technique, a number of businesses created gamification platforms. In October 2007, [Bunchball](https://en.wikipedia.org/wiki/Bunchball" \t "_blank),[[107]](https://en.wikipedia.org/wiki/Gamification#cite_note-108) backed by Adobe Systems Incorporated,[[108]](https://en.wikipedia.org/wiki/Gamification#cite_note-109) was the first company to provide game mechanics as a service,[[109]](https://en.wikipedia.org/wiki/Gamification#cite_note-110) on [Dunder Mifflin Infinity](https://en.wikipedia.org/wiki/Dunder_Mifflin_Infinity" \t "_blank), the community site for the NBC TV show [The Office](https://en.wikipedia.org/wiki/The_Office_(U.S._TV_series)). Bunchball customers have included Playboy, Chiquita, Bravo, and The USA Network.[[110]](https://en.wikipedia.org/wiki/Gamification#cite_note-111) [Badgeville](https://en.wikipedia.org/wiki/Badgeville" \t "_blank), which offers gamification services, launched in late 2010, and raised $15 million in venture-capital funding in its first year of operation.[[111]](https://en.wikipedia.org/wiki/Gamification#cite_note-112)

Among established enterprise firms, [SAP AG](https://en.wikipedia.org/wiki/SAP_AG),[[112]](https://en.wikipedia.org/wiki/Gamification#cite_note-113)[[113]](https://en.wikipedia.org/wiki/Gamification#cite_note-114) Microsoft, IBM, SAP, [LiveOps](https://en.wikipedia.org/wiki/LiveOps), Deloitte, and other companies have started using gamification in various applications and processes.[[114]](https://en.wikipedia.org/wiki/Gamification#cite_note-115)

Gamification 2013, an event exploring the future of gamification, was held at the [University of Waterloo Stratford Campus](https://en.wikipedia.org/wiki/University_of_Waterloo_Stratford_Campus) in October 2013.[[115]](https://en.wikipedia.org/wiki/Gamification#cite_note-116)