

Does gamification affect people's health?

The gaming industry is the fastest-growing branch of the entertainment industry. Finland is already at the top of the international game industry. Gamification, meaning the application of game dynamics and mechanics in various environments, such as online services, education or working life, is currently one of the most topical themes in health care. Innovations in information technology such as gamification can provide opportunities to promote people's health, functioning, rehabilitation or self-care. Health Games offers a new way and the new model in parallel with traditional methods.

Games have been little used in health care as a means of patient guidance or treatment. However, the literature would suggest that a wide range of research and development projects is currently ongoing. Games have been developed for different age groups such as children, young people and the elderly. Games have also been developed for different patient groups such as neurological patients, mental patients, and patients suffering from diabetes. Quitting smoking, reducing alcohol consumption, as well as dietary and exercise modification are areas in which games can be developed because these are typical situations in which people need motivation.

Games enable people to participate more effectively in the promotion of their own health. Games may also possibly render meaningful a healthier lifestyle because people can monitor their own development and through interactive games they can be more aware of the potential risks and opportunities. Games can make health promotion and rehabilitation appealing and interactive, involving people in participatory and motivating action.

Game technologies also enable social interaction, as they can be played in groups. Games make it possible to compete against an artificial opponent or another

person. In the course of the game the players make their own choices, a game of strategy and chance, therefore, each move in the game is always different. Games teach and develop players on several levels if only the player him/herself is active

Research has yielded irrefutable evidence of the benefits of games. In health care cost-effectiveness is essential in the deployment of new methods. Studies are needed to investigate cost-effectiveness of games. Games, however, are seen as a potential tool to benefit the health of all people of all ages.

Studies have shown that factors which change behavior and the relevant informatics methods and algorithms must be taken into account in the design of games. The research behind the development of the games will be interdisciplinary, possibly involving health psychology, computer science, health informatics, cognitive science, and educational methodology.

The development of games must also be multi-professional: customers, software developers, user interface specialists, health care professionals must be taken into account in the development process. In game development care must be taken to ensure that the games are ethically appropriate for different groups. In order to achieve profitable business in the early stages of the development process, market research must be included in health game development.

The implementation of games will change health professionals' way of working, and also pose challenges for knowledge. Furthermore, the infrastructures of organizations must permit playing in hospitals, for example, a wireless net. The organization must also take account of potential security risks if the option exists to play games using the organization's net.

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