Background on gamification and playful experiences, examples of games

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Hankkeen tavoite

Mosaic-hankkeen tavoitteena on edistää tasapainoisella tavalla sosiaali- ja terveydenhuollon palvelukokonaisuuksien toiminnan laatua, turvallisuutta ja tehokkuutta tuomalla palvelukokonaisuuksien toiminnan hallintaan uudenlaista monimutkaisten adaptiivisten järjestelmien ajattelutapaa ja käsitteistöä. Ajattelutavan käytäntöön viemisen tueksi luodaan myös pelillisen simulaatiotyökalun prototyyppi.
Gamification and playful experiences

Pelillistäminen ja leikilliset/pelilliset kokemuukset

Flow theory – as a scientific basis for gamification

- Mihaly Csikszentmihalyi’s influential flow theory is often mentioned when discussing the psychological basis of gamification.
- Flow refers to an **optimal experience**, a state of mind during which people typically experience deep enjoyment, creativity, and involvement with the activity they are performing.

Typical characteristics of flow experience

- Focused attention. Person’s attention is completely absorbed by the activity (no room for worries or distracting thoughts). People become so involved in what they are doing that the activity becomes spontaneous.
- Feeling of complete engagement in a creative or playful activity
- Sense of control, freedom from the sense of worry about losing control that is typical of many situations in normal life
- Loss of self-consciousness
- Feeling of becoming a part of a greater system through interaction
- Growth of self (skills and knowledge) through enjoyable interaction
- Sense of time is transformed

Conditions that are helpful in creating flow states

- Activities are goal-directed
- Goals are usually clear
- Activities are bounded by rules
- There is feedback of one’s actions (usually immediate)
- Activities require skill
- Activities provide challenges, opportunities for action
- There is an appropriate balance between skills and challenges
  - Person is challenged to do her best, and can constantly improve her skills (“skills” in a wide sense, including knowledge and understanding)
Complexity of consciousness increases as a result of flow experiences

Gamification

- Games have built-in mechanics, processes, and elements that are seen as beneficial in creating optimal experiences.
- In gamified solutions in the application areas outside of the entertainment games, the processes and mechanics of (entertainment) games are adapted to so-called serious games or other (non-game) solutions with gamified aspects.
- Validation: user experience measurement, behavior changes, …
Assumed general benefits of gamification

- Gamification is assumed to make an application or service *attractive, engaging, and motivating* to its users,
  - capturing attention and motivating people to push themselves to perform difficult tasks, which could otherwise be perceived as frustrating
  - providing a sense of control and empowerment
  - enabling people to experience situations from the points of view of other persons / roles
  - allowing people to experience future conditions or states

Game mechanics, processes, and elements

- Basic game mechanics: rules and procedures of the game
- Feedback
- Rewards
- Measurement of progress and achievement
- Storytelling: the sequence of activities/events that unfold during a game
- Aesthetics, visuality: the look and feel of the game
- Technology: games can be low- or high-tech, on physical or digital medium(s), using various types of materials and ways of interaction
The core GEQ includes seven factors:
- Imaginative and sensory immersion
- Competence
- Flow
- Tension
- Positive affect - fun & enjoyment
- Negative affect
- Challenge/Suspense.

For social (multi-player) games, three social presence components:
- Psychological involvement – empathy
- Psychological involvement - negative feelings
- Behavioral involvement

Post-game experience components:
- Positive experience
- Tiredness
- Negative experiences
- Returning to reality

Playfulness is a powerful motivator for behavior
Playfulness appears to be a concept whose meaning everyone knows but which no one knows how to define
Playfulness is characterized by cognitive, physical and social spontaneity, manifest joy and sense of humor in children; and gregariousness (sociality), uninhibitedness, comedic expression and dynamicity in adults
It has been suggested that playfulness as an activity corresponds to the behaviorally observable component of flow experience
Digital games have become one of the most popular and socially acceptable ways to experience and express playfulness among adults
The 22 PLEX Playful Experiences

- Captivation, forgetting one's surroundings
- Challenge, testing abilities in a demanding task
- Competition, contest with oneself or an opponent
- Completion, finishing a major task or reaching closure
- Control, dominating, commanding or regulating
- Cruelty, causing mental or physical pain
- Discovery, finding something new or unknown
- Eroticism, a sexually arousing situation
- Exploration, investigating an object or situation
- Expression, manifesting oneself creatively
- Fantasy, an imagined situation
- Fellowship, friendship, communality or intimacy
- Humor, fun, joy, amusement, jokes or gags
- Nurture, taking care of oneself or others
- Relaxation, relief from bodily or mental work
- Sensation, excitement by stimulating senses
- Simulation, an imitation of everyday life
- Submission, being part of a larger structure
- Subversion, breaking social rules and norms
- Suffering, loss, frustration or anger
- Sympathy, sharing emotional feelings
- Thrill, excitement derived from risk or danger

Kommentteja tai ajatuksia pelillisyydestä ja pelillistämisestä?
Examples of gamification: Citizen science

- "Citizen science" makes it possible for non-scientists to participate in scientific research by allowing them, for example, to carry out observations on scientific data in a game-like manner, making a laborious task attractive and engaging.

Example, health care management game: Assisted Living Community

- Players act as the management of an assisted living company. Strategy, HRM issues, and finding a genuine balance between people & 'profit' are the main subjects in this management game.
- “BusinessGameShop.co.uk has created multiple Health Care Games for pharmaceutical companies, assisted living communities and production companies for medical supplies.”
How to use war games as a strategic tool in health care

- In late 2010, senior managers and clinicians from the English National Health Service (NHS) gathered with colleagues from regional and city governments to deal with a problem all too familiar to health care executives elsewhere: to prepare for health care policy changes that the newly elected government was planning. To determine how best to respond, they used a technique widely employed in business but rarely utilized in health care — war games.
- Given today’s uncertainties, war games could be a useful tool for other health care organizations. The games could enable them to better anticipate the effect of regulatory changes, the influence of new technologies on care delivery and economics, and the impact of new entrants with different business models. The games could also help health care organizations better prepare for negotiations with major suppliers.
- War games are interactive sessions with a defined sequence and clear rules. Teams are assigned to play the role of different stakeholders — in a health system, these might include payors, hospitals, physician groups, regulators, and suppliers. In the game’s first round, the teams are asked to respond to a given challenge; the actions each team can consider are stipulated by the game’s rules, which are based on what is permissible within the system.

Elizabeth Bury, John Horn, and David Meredith. How to use war games as a strategic tool in health care, Health International 2011 Number 11, p. 28 – 37.
Lean Lego Game
- 4 Rounds to Successful Lean Training

The Game:
The game is played with 4 teams of operators who work different stations.

1. First team sorts the Lego bricks into colours
2. Second team sorts the bricks into different sizes (keeping colours separated)
3. Third team sorts the bricks into specific lots required to build a Lego house
4. Fourth team takes specified bricks and builds a house according to the instructions

Round 1 - Push System
- Teams sort and build as fast as possible.
  Inventory piles up. Chaos ensues. Debrief.
  Discuss waste, inventory, 7 wastes, push vs pull, kanban.

Round 2 - Pull System
- Install buffer limits between stations and only build when buffers empty. Debrief.
  Discuss solving unleveled process and the concept of a work cell.

Round 3 - Work Cell
- Simultaneous house construction in work cells.
  Debrief. Discuss concept of kaizen.

Round 4 – Kaizen
- Teams allowed to change what they want to improve process. Conclusion and final debrief.


Friday Night at ER
http://www.fridaynightattheer.com/

- The game simulates the challenge of managing a hospital during a 24-hour period. Players perform distinct functions, but they come to realize they also depend on one another.

What Can it Teach?
- Systems Thinking: managing interdependence, complexity, delay
- Collaboration: shared accountability, coordinated action across functions
- Innovation: working with mental models, openness to redesign
- Use of Data: system performance data, measurement
- Structural Thinking: designing for performance
Pandemia

- Ryhmän asiantuntijat joutuvat kohtaamaan elämänsä haasteen: eri puolilla maapalloa on puhjennut peräti neljä pandemiaa, jotka uhkaavat koko ihmiskuntaa. Ryhmän jäsenten täytyy työskennellä yhdessä, omia vahvuuksiaan hyödyntäen, jotta taudit eivät valloita koko maailmaa. Kello käy armotta, kun uusia tautipesäkkeitä puhkeaa kuudella mantereella. Ehdittekö löytää parannuskeinoit ennen kuin on liian myöhäistä?

- Pelaajien on samaan aikaan organisoitava tutkimustyötä parannuskeinojen löytämiseksi ja taisteltava uusia epidemioita vastaan. Pystyvätkö pelaajat pitämään tartunnat kurissa niin kauan, että parannuskeino jokaiseen tautiin saadaan keksittyä?

Life Coach