

# INCREASING COLLECTIVE CREATIVITY

## THROUGH GAMIFICATION

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# PROBLEM & PURPOSE

- › **Problem question:** can gamification be used in fostering collective creativity and how it could be applied in order foster creative collaboration?
- › Analyze **gamification**, as the method for fostering **collective creativity**.
- › **Creativity** is understood as “any act, idea, or product that changes an existing domain, or that transforms an existing domain into a new one” (Csikszentmihalyi, 1996)
- › **Collective creativity** is analysed with the respect to **Componential Organizational Innovation theory** which emphasize on domain-relevant skills, creativity-relevant processes, and task motivation.
- › **Gamification** is analyzed as “use of game design elements in non-game context” (Deterding, Dixon, Khaled, and Nacke; 2011).

# MAIN STATEMENTS

- › **Collective creativity** is inseparable part of **innovation management**.
- › **Motivation** and **knowledge base** are few of the most important components for a productive **creative output**.
- › **Gamification** is a method which uses game mechanics elements to increase **immersion**, **engagement**, and „**flow**“ states.
- › People in a state of “**flow**” are those who feel they are **engaged** in a creative unfolding of something larger, whether it's a video game, sport competition or an act of art.
- › During this state the knowledge or emotions absorption rate is increased and the involvement into activity reaches its **maximums**.

# TOWARDS GAMIFICATION

- › According to Zichermann and Cunningham (2011), gamification may be defined as *“the process of game-thinking and game mechanics to engage users and solve problems”*.
- › Deterding et al. (2011) defines gamification as *“use of game design elements in non-game contexts”*.
- › The study of Przybylski, Rigby and Ryan (2010), which used **self-determination theory** as a basis, revealed, that at least three factors make independent impact to game engagement in a short term:
  - **autonomy** - sense of choice and psychological freedom, ability to influence the gameplay;
  - **competence** – the feel of effectiveness in game;
  - **relatedness** – needs, the feel of connectivity and interaction with others.

# TOWARDS GAMIFICATION

- › There is dependency between psychological needs satisfaction and **engagement** into gaming;
- › **Games** can **enhance** wellness or aggression, depending from the satisfaction level of universal needs for competence, autonomy, and relatedness.
- › **Game** creates immersive experience where engagement overgrows into „**flow**“ states thus increasing knowledge absorbtion.



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# CREATIVITY & GAMIFICATION

- › Creativity is related with novelty, originality, value, unexpectedness and the **knowledge base**, which is used as a background for creative ideas (*Harnad, 2007*).
- › Creative activities and gaming may be grounded with the same **self-determination theory**.
- › Since properly **gamified domain** may have a positive boost on a motivation, later on it may influence the self-determination, which, on the long run influences creativity, since individual is more willing to spend **more time and effort** while searching solution for the problem.

# CREATIVITY & GAMIFICATION

- › Although a disposition to be **self-determining** may be useful to people engaged in creative pursuits, a person who is self-determined is **not necessarily** a person who is **creative**
- › Gamification creates an environment of entertainment, which strongly relies on ensuring the realization of autonomy, competence and relatedness. The **intrinsic** and **extrinsic** motivators which keep a gamer involved, serve as a basis for engagement, and in some sense, relates with the fulfillment of basic psychological needs.
- › Properly gamified content may encourage “**flow**” states, so it is plausible, that person spending more time and efforts while gathering the experience in the domain may lead to **increased creativity**, since “**knowledge base**” is one of the criteria for group being creative.



# THE POINT

- › Gamified content => Increased immersion and engagement into activities
- › Increased immersion and engagement into activities => Frequent FLOW states
- › Frequent FLOW states => More time spent on the activity with increased knowledge absorption
- › More time spent on the activity => Increased skills and knowledge base
- › Knowledge base => Basis for productive collective creativity





# THANK YOU FOR ATTENTION



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