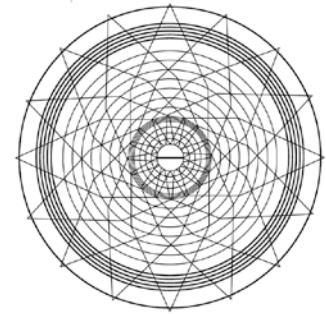


## [Scientific Articles]

Wellner G.

*Gamification as an Enabler of Communication*



## GAMIFICATION AS AN ENABLER OF COMMUNICATION

**Wellner G.**

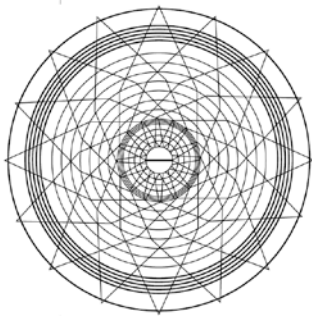
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### **Abstract:**

Peacebuilding processes aim to establish communication among people who do not communicate with each other. Such communication can be built on a joint interest, such as sustainability and water preservation. One of the key challenges is the recruitment of participants, thereby overcoming hostility and suspiciousness. The proposed solution is to use a cellular gaming app in order to facilitate recruitment and offer a gamification of the activities related to water management. The methodology used in order to approach this complex challenge is founded on Foucaultian genealogy and a branch of philosophy of technology referred to as postphenomenology. The article examines the reference to the game as an enabler of experiments of the world. In order to ignite an experimental approach via gamification, the app should include three elements: casual mobile gaming, location-based gaming and social media gaming. Combined, these elements may lead to the design of a hybrid real-virtual space reward system and the creation of a community.

**Keywords:** cellular app, game, genealogy, interdisciplinary, peace, postphenomenology, sustainability, water



### **Introduction: A Gamification Project**

It is commonly known that in conflict areas the communication between people residing on different sides of the border is minimal. Some of the efforts directed towards solving such conflicts involve the provision of a communication platform among the residents of these areas in order to create a “grass root” movement, a bottom-up process. A recent project aims to further explore this path and to unite people around the undisputable need to preserve water resources, ensure they are clean and safe, and cultivate the natural lives around them. One of the key challenges is the “recruitment” of participants, thereby executing the first phase to overcome hostility and suspiciousness. The proposed solution is to use a game-like cellular app in order to facilitate recruitment and the activities related to water management. This tactic is known as gamification.

Recently, gamification has become a popular theme, both for practitioners and scholars. It can be described as a method for adding a layer of meaning to games and rendering them into a useful tool in the pursuit of a specific goal. While a game is intended to be careless and aimless, gamification seeks to turn it into “something in order to.” This aim has been met with some criticism, particularly in light of the hyper-capitalistic goals associated with many gamification projects. In this article one gamification project is described that orients the users to certain goals, but avoids the hyper-capitalistic directions in favour of sustainability and peace.

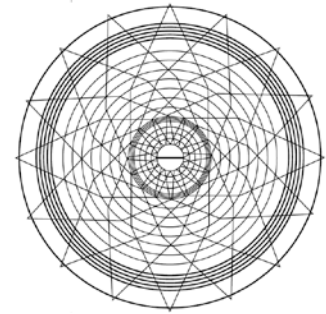
This article provides an interdisciplinary analysis that led to the design of a unique gamification project. The project is intended to promote sustainability through the creation of neutral meeting points in which people holding different opinions, beliefs and agendas can meet, discuss and agree upon the preservation and restoration of water sources. It is assumed that the facilitation of meetings based on agreement and cooperation may promote communication among opposing parties, and may eventually support the maintenance of peace. Water sources were selected as the focal point because water can be a source for eco-pessimism or eco-optimism. People can engage in water wars, or – as the project aims to promote – in water peace. Environmental projects can stimulate peace-making, according to Ken Conca and Geoffrey D. Dabelko (2002) with respect to three inter-related aspects:

- The complexity and need for anticipatory responses of environmental problems can help build up trust and stability between conflictual parties, thereby improving the opportunities for interstate bargaining.
- In addition to the contribution to stabilising interstate relations, environmental peace-making can create a tradition of cooperation and foster trans-societal relations, interdependence, and even a “shared collective identity” between parties.
- Finally, an environmental project can lead to the transformation of state institutions in manners that tend to promote peace.

## [Scientific Articles]

Wellner G.

*Gamification as an Enabler of Communication*



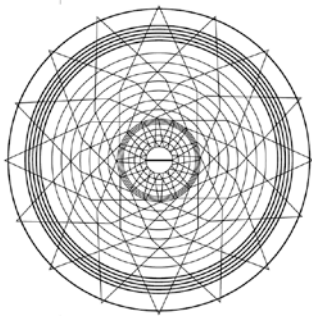
The project's title is "Environmental Well-being for Peace Building." Instead of pursuing either sustainability or peace, the project targets both. Well-being is added as a common denominator and a key motivation for both targets. In other words, well-being is offered as a basic value and a target on which all parties can agree upon, even if they hold polemic opinions on sustainability or peace.

Complex problems usually require complex solutions, and environmental peacebuilding is no exception. The usage of gamification techniques and the addition of the concept of well-being are intended to provide a novel solution. However, these additions come with a price, since they add further complexity and the involvement of additional disciplines. Hence the methodology needs to support interdisciplinarity and sensitivity to the relations between humans, their world and the surrounding technologies. The first sections of the article are dedicated to the methodology that combines Foucaultian genealogy with an emerging branch of philosophy of technology referred to as postphenomenology. This unified methodology serves as the foundation for the project and should guide the designers of the gamification project. The next sections refer to some basic design principles of gamification and to the expected effects on well-being, the environment and the promotion of peace.

### **Methodology: Genealogy**

In *Genealogy as Critique*, Colin Koopman (2013) interprets Michel Foucault's genealogy as the interplay of two variables – power and knowledge. It is a historical model that explains the past and thereby illuminating the present. The goal is to "use history to evaluate the present" (Koopman 2013, 87). When dealing with forward-looking projects such as the one discussed in this article, this double-structure might be regarded as impracticable, particularly in this case which is an attempt to implement new models that were not tried before. Both variables are unfeasible: while power is easily identified mostly in retrospect, it is very difficult to be predicted. Knowledge is also complex because of its multistability. Multistability is a notion coined by Don Ihde (1990; 2012) designating the multiple meanings various people assign to the same technology in different places and times. Take for example gunpowder. It was originally invented in China as a remedy, turned into pleasurable fireworks, and ultimately served in the West as a mass weapon. It is impossible to predict how knowledge will be implemented and in which directions it will develop. The solution is to analyse the gamification project on the basis of other variables, as will be detailed shortly.

One of the major benefits of genealogy is its ability to extend beyond the analysis of the past. Foucault moves from "classical" history to what he terms "history of the present", in which the past is re-assessed over and over again according to the various perspectives we gain in the present. At the same time, the past can illuminate our present in surprising ways. Yet, this part of Foucault's genealogy requires some modifications for the purpose of the gamification project. Foucault's theories are well-



known among people involved in geo-political disputes and it is a common practice in the case of both parties involved in a certain dispute to perform “histories of the present”. History serves as a justification for acts and ideologies. Such practices tend to direct the parties’ energies to the past instead of the future, thereby distancing themselves from finding solutions for a better future.

A possible way out can be found in the philosophy of technology. Academic research on contemporary technologies faces the challenge of outdatedness. The mobile phone is an example of a technology that develops at a much faster pace than the normal scholar cycle of research and publication (see G. Wellner, 2015). Today’s changes occur too fast for the history of the present. Current technology is governed by Moore’s Law according to which the density and speed of electronic chips doubles every 18 months. The result is thus associated to frequent changes over very short periods of time that do not allow us to reflect on the present. Therefore, it is suggested to switch the focus and to study the past and present in order to illuminate the near future. These are referred to as “histories of the future” (G. Wellner, 2015). It is histories in the plural, because there can be many of them, when regarded from the present point of view. It is in line with the multiplicity of stabilities (Ihde, 1990), knowledges (Haraway, 1998) and attentions (Friedman, 2014).

After switching from the present to the future, the next step involves a replacement of the variables. The foundation for this move can be found in Koopman’s note in which he explains that theoretically one can think of an interplay of three parameters, yet he does not develop this direction. In this article, the possibility of a three-dimensional genealogy is explored with the aid of postphenomenology. This new type of genealogy studies the interrelations between the user, the gaming technology and the surrounding world. If Foucault analysed sexuality by studying two parameters of power and knowledge, the analysis of peace and sustainability in this instance is conducted using the three parameters of “I,” “game,” and “world.” Postphenomenology is a theory that investigates the interrelations between these three parameters.

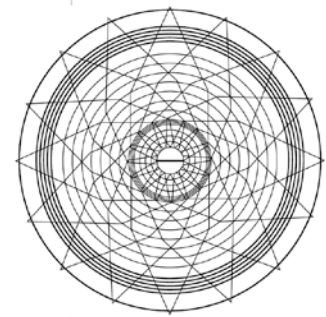
### **Methodology: Postphenomenology**

Postphenomenology is a branch of philosophy of technology that combines phenomenology and pragmatism. While phenomenology studies our experiences in the world, post-phenomenology claims that our experiences in and of the world are technologically mediated. Such a claim is not directed towards a dystopian critique stipulating that technology ruins us; nor is it directed towards a utopian fantasy claiming that technology will save us and make us better. Technology is not neutral either, as it does something; the mediation changes us and the world. Therefore, postphenomenology attempts to analyse three variables – “I”, “technology” and the “world.” Similarly to genealogy, the postphenomenological analysis prompts curiosity,

## [Scientific Articles]

Wellner G.

*Gamification as an Enabler of Communication*



and assists us to unsettle the familiar ways of doing. Both theories share the same methodological foundation, namely that of an analysis of historical variations.

The basic postphenomenological formula is I-technology-world. Technology is positioned between the human and the surrounding world as a mediator. Note that the mediation is not uniform and that the various mediations produce several types of relations. Don Ihde (1990) maps four of them:

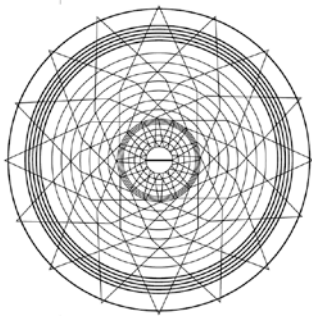
- Some technologies become part of our bodies. Think of parking a car or driving bicycles, where you know if you can pass through a narrow passage. These are embodiment relations.
- Sometimes the technology is perceived to be part of the world, and we “read” the world through the technology. Here the classical example is the thermometer, which is attached to the window, telling us – upon reading its scale – whether it is cold outside.
- And sometimes we refer to the technology as a quasi-other, maintaining with it a certain dialogue, as we do with ATMs, voice menus of automatic answering systems etc. These constitute alterity relations.
- Lastly, in the case of background relations the technology “withdraws to the background” and we do not pay attention thereto, such as for example the air-conditioner, the chairs and the windows in a room.
- Table 1 depicts the permutation to the postphenomenological formula for each of the four relations.

Embodiment Relations	$(I - \text{technology}) \rightarrow \text{world}$
Hermeneutic Relations	$I \rightarrow (\text{technology} - \text{world})$
Alterity Relations	$I \rightarrow \text{technology} (- \text{world})$
Background Relations	$I \rightarrow (\text{technology} -) \text{world}$

**Table 1.** The postphenomenological relations

In these four permutations there are two basic usages for the parentheses: in the first two, they denote a binding relation in which the technology becomes part of either the user or the world; in the last two, the parentheses function like the Husserlian bracketing that puts something aside such that we can examine a simpler situation.

In the next section, a new type of formula is provided in which the “technology” element of the post-phenomenological formula is replaced by “game,” and the dual use of the parentheses is implemented. It should be noted that “technology” cannot be simply replaced by “game” because they function differently: while technology mediates the experience of the world, a game enables the experiment of the world. It is a double difference, from mediation to enablement, and from experience to experiment.



### I-Game-World

Johan Huizinga is regarded as the father of game studies. He maintains (1955) that in a “classical” game there is no material interest. The game happens outside ordinary life. It is unproductive. A game can function as “paidia”, which is characterised by spontaneity, vertigo and chance, as in the case of a swing. Alternatively, a game can operate as “ludus” that is more controlled and restricted by rules, e.g., a chess game. The representation of paidia by the I-game-world formula will resemble the alterity relations in which the world is “bracketed,” and the attention is focused on the game:

$I \rightarrow \text{game} (- \text{world})$

Ludus, by contrast, distracts the attention from the game. Take for example serious games, such as war games that include simulations and role playing, sometimes accompanied by competition. In this case, the (virtual or simulated) world remains significant, and it is the game that should be “bracketed”:

$I \rightarrow (\text{game} -) \text{world}$

Digital games are sometimes perceived as a new type of games, due to gamer culture and virtual economies. But most digital games function as either paidia or ludus. After the conceptualisation of digital games within the existing frameworks, gamification opens new options. Gamification has been positioned as a new phase of games, games that are in order to improve productivity, learning, health etc. They have a purpose. Gamification has modified the standard approach to classical children’s games, which are now marketed as something “in order to”, something that is intended to enhance children’s development, make them smarter or just keep them busy while travelling. For adults, the proposition is to mix leisure and work, and to make work more attractive and appealing. Mihaly Csikszentmihalyi, for example, develops the notion of “flow” for both work and game. The formula for gamification remains correlated with that of the serious games: I-(game)-world.

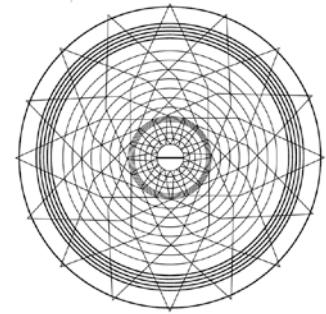
The interesting development, that produces new permutations of the formula I-game-world, came recently in what Sebastian Deterding terms as “a gameful world” (Deterding, 2014, 24). He alludes to “the ludification of culture and the cultivation of ludus” (24). It is a cultural shift in which games have moved to the centre of our lives. Games have become ubiquitous. They do that because they are based on “funology” (28).

Although the phrase “gameful world” hints that the world and the game have become inseparable, the world remains wild and unstructured. The world does not obey the rules of the game. Deterding explains: “Reality has no tutorials, walk-throughs, or rulebooks. Not every puzzle has a solution. There are no save games, no insert coins to continue (well, depending on your creed). The cards are almost invariably stacked,

## [Scientific Articles]

Wellner G.

*Gamification as an Enabler of Communication*



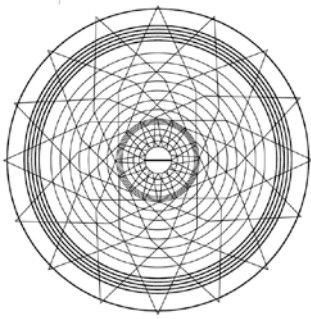
and often enough, everyone is bound to lose” (Deterding, 2014, 50). In such a “gameful world” the “I” is transformed, as these games attempt to enhance the player’s productivity, happiness etc. Regardless of whether these goals are achieved or not, the “I” is transformed into a constant-gamer, a participant in a game that cannot leave the game. No wonder that the “Hunger Games” series became so popular. Similarly to the embodiment relations, these relations change our comportment in the world, and thus it is suggested that the permutation of the postphenomenological formula would be:

$$(I - \text{game}) \rightarrow \text{world}$$

In the sustainability – peacebuilding project, the game is integrated into the project so that it would engage people, particularly young people, but not only. The underlying assumption of the project is that games can help users to promote sustainability and peace. The project aims to shift from the self-improvement and personal well-being paradigms to an environmental well-being paradigm. The project’s starting point is simple: even if each person’s well-being is maximised, the result is not necessarily a happier society. The US provides many examples of this phenomenon: bigger houses, more cars - these do not yield societal happiness. On the other hand, societies with greater cohesion contribute to the well-being of their members. Environment and peace are properties of the world and they can be enhanced via the game. The game should provide a simulation of alternative lives, yet link the simulation to the real world. In other words, the project’s goal is to extend beyond the game by linking it to life, water, and new communities. Therefore the formula to be sought is:

$$I \rightarrow (\text{game} - \text{world})$$

Gamification allows us to turn the game into a meaningful actor in “real life.” The link between game and life (as gamification) stretches between two opposing poles. Deterding describes the first pole as “the rhetorics that accept our secular gods of progress, productivity, and the self.” Under this frame, “game play and game design [are] the perfection of means toward these given ends.” In short, these games are intended to make us fitter, happier, and more productive. It is based on a mundane, individualist, technical rationality” (48). And when it does not work, i.e. does not deliver the desirable results, “the suggested solutions almost always involve adding more structure, rules, and goals (the only exception being the rhetorics of pleasure and industrial creativity)” (49). It follows the logic of the technologies of the self. Deterding points to the weakness of this approach by revealing its false assumption: “It is not so much that we voluntarily play games because they are so much fun; rather, we experience game play as fun partially because it is framed as autonomous, with no outer control, coercion, or frightful consequence affixed” (49). We enjoy the game



because it allows us to experiment, to make mistakes without paying a price. We almost always have more lives in the game.

The other pole is about critique, resistance, and subversion. This approach regards games as “pocket utopias” reminding us that “another world is possible” (49). However, these rhetorics “have to respond to Horkheimer and Adorno’s (2010/1969, 145 – 150) interjection that play as a refuge from the world of instrumentality is always already instrumentalized as a restoration for that world” (Deterding, 2014, 49). Deterding continues: “And [we] have to ask [ourselves] to what extent any playful reclaiming of public life is really a form of repressive tolerance that discharges revolutionary energy and resells it as commodified dissent.” (49) Hence, the sustainability-peacebuilding gamification project tends towards the latter pole, and Deterding’s warnings are taken into account. More caveats should thus be added thereto.

### **Caveats**

One important caveat is Don Ihde’s “designer fallacy” (2008B). The “designer fallacy” is a phenomenon according to which users do not always “obey” the instructions for use that designers had in mind during the planning and design process. The phenomenon raises some serious questions for technology and game designers:

- Is it possible to design a game that will promote a peace process? Sustainable practices? Or at the individual and societal levels – well-being?
- How can we ensure that the surrounding (real) world of conflict and hate will not take over the “I-game” relations?
- How can we facilitate an intervention in which a game will make a difference in the world?
- Is it possible to change attitudes by means of a game?

All these questions are relevant to most designers in many cases, yet in the context of a geo-political conflict they become acute and pressing. There is a clear need to “test the water” and see if it works. It is difficult, if not impossible, to predict in advance whether a certain practice will work or has the potential for mal-adaptation.

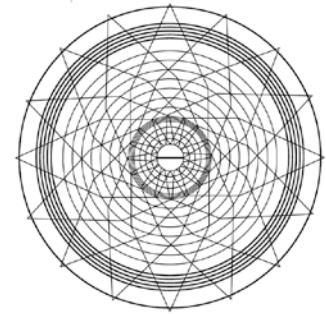
Another caveat is provided by Ian Bogost who provocatively states: “Gamification is Bullshit” (Bogost, 2014). He has published this paper in several venues since 2011, but only in 2015 it was fully published as a chapter in a book in which Bogost details the nuances of his claim. Apparently, Bogost criticises the approach that regards gamification as a panacea for any trouble a business might experience. His rage is directed towards the consultants of gamification (“funsultants”) for whom games become a business opportunity as they “harness the fear to help corporations believe they are benefiting from the power” (Bogost, 2014, 65). Bogost’s criticism is directed towards “a style of consulting that happens to take up games as its solution” (68). He



## [Scientific Articles]

Wellner G.

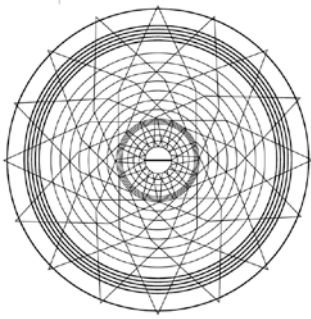
*Gamification as an Enabler of Communication*



opposes such consultants because “They just want the simplest, fastest route to getting customer sign-off and billing for services” (68). And he adds: “For gamification, games are not a medium capable of producing sophisticated experiences in the service of diverse functions and goals, but merely a convenient rhetorical hook into a state of anxiety in contemporary business” (76).

Gamification involves not only business persons and consultants but also psychologists, many of whom are behaviourists. Behaviourism is an approach to psychology that attempts to understand all behaviours and all psychological events in terms of the interactions of an organism in and with its environment. This theory nicely fits into the postphenomenological I-technology-world scheme, as both theories refrain from explanations in terms of free will, cognitive activity, desire etc. For the behaviourists, “The core idea is that through modifying the environment and giving suitably motivating rewards, the behaviour of players can be changed for their own benefit” (Linehan, Kirman and Roche, 2014, 82). Behaviourists view the world through the lens of reward and punishment (positive and negative reinforcement in B. F. Skinner’s terminology). They assert that games and problem solving have the same mechanism, as evidenced by Skinner in his *Science and Human Behavior* (1953): “A person has a problem when some condition will be reinforcing but he lacks a response that will produce it. [...] solving a problem is, however, more than emitting the response which is the solution; it is a matter of taking steps to make that response more probable, usually by changing the environment” (quoted in Linehan, Kirman and Roche, 2014, 92). In the sustainability - peace-building project, rendering the problem-solving operational at a group level constitutes a significant challenge. As a reminder, the project targets problems which are in the areas of water management and the promotion of peace among inhabitants and the visitors of water sources. Deterding argues that behaviourism is not sufficient because humans voluntarily engage in activities without any reinforcement or outside control (Deterding, 2014, 44). While behaviourism provides many important insights into behaviours, there is still a need to also analyse experiences, as well as our pursuit of happiness and well-being.

One of the main psychological theories of well-being is the “Self Determination Theory” (SDT) developed by Richard M. Ryan and Eduard L. Deci some 20 years ago (see Ryan, Huta and Deci, 2008 and the references there). The origin of their research is the intrinsic motivation in children in the education system. They mapped three basic psychological needs that when properly answered enhance the chances for intrinsic motivation for learning. Later they discovered that the fulfilment of these needs also leads to long-term happiness, that is—eudaimonia. The three needs are autonomy, competence and relatedness. Autonomy means that one can develop wishes, free thinking and free will (subject of course to the limitations of the latter notion...); competence is about the ability to execute, the skills and the relevant knowledge associated thereto; and relatedness refers to the feeling of being loved and cared for. The theory is basically open to additional needs, and the list is not closed. Deci and Ryan note that “[The] three needs can be satisfied while engaging in



a wide variety of behaviors that may differ among individuals and be differentially manifest in different cultures” (Deci and Ryan, 2000, 231). While the needs are universal, the fulfilment is individual. Fulfilment involves values, goals and specific behaviours. “Values may . . . influence behavior through the goals they organize” (Kasser, 2002, 123). In the case of the sustainability - peacemaking project, the values are sustainability and peace, though they may serve as mere goals when the values are rooted, for instance, in religious and historical spheres. For this specific project, this difference is marginal.

### **Outlines for a Gamification Project**

The sustainability - peacebuilding project involves the development of a digital game which will be a cellular app, accessible to the inhabitants and visitors of certain water sources. The cellphone app will combine three modalities of cellphone gaming: casual mobile gaming, location-based gaming and social media gaming.

Casual mobile games originally emerged as discrete offline pre-loaded apps. Classical examples include games such as Snake and Tetris. These games can be seen as a form of portable home entertainment. They are played occasionally, for minutes (or more), and they are deliberately open to distraction. Ingrid Richardson and Larissa Hjorth describe these games as “a kind of antisocial ‘cocooning’ and self-contained mode of being-in-public” (Hjorth and Richardson, 2014, 3). A casual game “cocoon the player in public places, facilitating a radical mobilization of personal space and privacy” (3). But the addition of the other two modalities - location-based gaming and social media gaming as described below – turn mobile games into a social tool for interacting with others, thereby enacting yet another new mode of being-in-public.

In location-based games users virtually “log-in” to physical locations which are virtually geo-tagged. These games generate hybrid experiences of place and presence, as well as new forms of co-presence. They do so by requiring the players to integrate their own situated and embodied perception of the world with dynamic GPS-enabled information, embedded within an augmented and networked game reality. The result is a “digital ludic layer over physical space” (3) which turns physical spaces into playful spaces, or (as in the case of Foursquare) turn a non-gaming activity into a game by rewarding people for their activities.

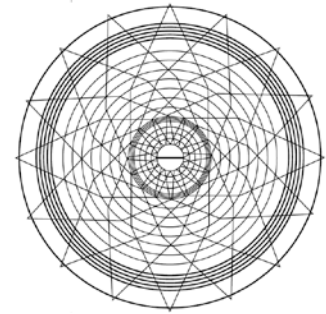
Elsewhere Richardson (2011) shows that the ontology of location-based games complicates the physical/virtual dichotomy in the ways they merge the digital with the physical. From game theory’s perspective, it is an erosion of the notion of “magic circle,” i.e., dedicated game-space. This serves as the basis for a partial simulation that the proposed gamification project will run.

Today the majority of the location-based games and gamification are set in cities. For example, Richardson and Hjorth explore how the games “transform urban spaces into playful places” (2014, 7). This phenomenon is a by-product of the deployment of

## [Scientific Articles]

Wellner G.

*Gamification as an Enabler of Communication*



cellular networks that are denser in urban areas and become rare as one distances himself from the city centre. With the evolution of cellular telecommunication technologies, this difference is eroded. It is this advancement that enables the usage of the gamification project in non-urban spaces. The classification of spaces to urban/non-urban becomes meaningless.

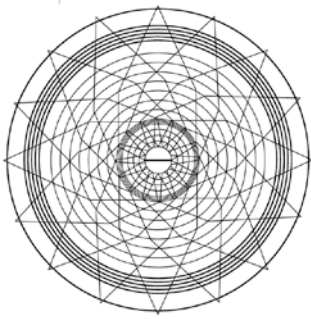
Richardson and Hjorth look at the intersection of mobility, gaming and location, particularly urban spaces. The urban environment is a given in which one navigates and adds a digital layer thereto. The sustainability-peacebuilding project attempts to change the world towards a more sustainable one and wishes to create a virtual community that will overcome the fears and suspicions accumulated over the years. More importantly, the space of the meeting points is not regarded as a place where only humans reside, but rather as an ecology where humans are but one actor that occupies the space. It is an approach that takes into account other players, even if they are animals, vegetables or mute matter. It is an approach that respects the environment (see for example Latour, 2013).

Social media games interweave the previously disparate domains of online social networking and mobile gaming, turning many of the interpersonal, social and communicative practices into “playful” activities. These games promote the dissolution of the traditional separation between “playful” and “serious” (Frith, 2013, 257). Social media games facilitate identity performance through the social networking element so that “adding gamification elements to everyday life can encourage behaviors in the physical world” (258). While most apps are geared towards encouraging consumption, the gamification project aims at encouraging sustainability and peace.

### **Gamification of “Environmental Peace-Building”**

The sustainability - peace-building project will involve the development of a mobile game that will include location-based and social gamification elements. The gamification may assist in overcoming the gap between the simulation (as provided by theatre, literature and classical games) and the “real life.” It is expected (and hoped) that small “molecular” actions in the realm of simulation may bring a substantial “molar” change to the environment and regional politics.

The social networking element will serve as a tool in order to establish the interaction between neighbouring communities and hence create new hybrid communities. Specifically, it will allow the users to know people “from the other side” and may facilitate the joint water management and coordination of the preservation actions. All these may hopefully create a tradition of cooperation, or at least encourage people to think otherwise through a simulation of virtual communities. The game will encourage the users to earn points for actions that may promote sustainability and peace. For example, the users will earn points for having friends “from the other side.” There is obviously a significant difference between social networking friends and real friends. The proposed game will take advantage on this ambiguity and urge people to acquire



## [Scientific Articles]

Wellner G.

*Gamification as an Enabler of Communication*

virtual friends even if in “real life” they would not have met them. The anticipation is that in some cases people will meet to discuss their mutual interests, and some forms of “real life” friendship may evolve, as is sometimes the case in some meet-up groups. With this goal in mind, points can be accumulated for exchanging messages, which are in turn perceived as a form of digital collaboration. Taking the caveats into consideration, the designers should be aware of potential hate messages, and should attempt to filter them.

The location-based element will ask the users to “check-in” in the locations where water preservation takes place. It is expected that this feature will encourage visits to sites related to the project and will bring opportunities for meetings over shared values and goals. Think for example of a floodgate intended to stop floods and make the water seep into the ground. This way the rainwater will end up in the aquifer instead of the sea. These spots are obviously non-urban, and they attract wild life and vegetation. It is important that the app explains the flow of water, as well as creates an opportunity to enjoy the beauty of wild life, and possibly enables the coordination of volunteering works on-site.

The game can also serve as a platform to create simulations in the old sense of digital representations of “real-world” sustainability projects. It is expected that a complex relation between the real-life project and its digital representation will be established, where the advancement of one assists the progress of the other. In a sense it follows N. Catherine Hayles’ (1999) virtual-real space in which the virtual and the real are intertwined and can only be separated theoretically for analytical purposes.

Similarly to most games, the project will provide a layered reward system on the user’s digital activities. It is a challenge to produce a hybrid system in which the real will be linked to the virtual. The project’s game will combine location-based and social media modalities of mobile gaming. Unlike most of today’s popular mobile gaming, there is a switch from an urban emphasis to a non-urban environment. But the real difficulty might be in the attempt to produce a hybrid community “from scratch” and to replace hostility with friendship. The ultimate goal is to build a community and its non-formal institutions in places where hostility reigns today.

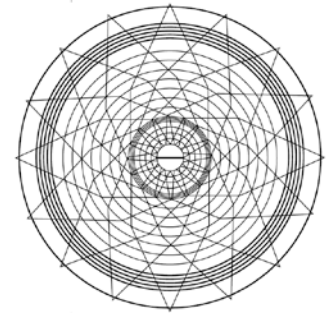
### **Conclusions**

The gamification of the sustainability - peacebuilding project moves away from the maximisation of personal well-being to societal and environmental well-being. The gamification app is designed under the assumption that such games can help users to resist and subvert, and to change the world, for example by conveying the feeling of a group, or the sense that “I’m not alone in this effort.” But the project is not realised yet. What is available at the moment of writing this article is an intellectual exercise that bridges multiple gaps.

## [Scientific Articles]

Wellner G.

*Gamification as an Enabler of Communication*



The first gap is between the real and the simulated. The gamification project provides an intellectual exercise: what if we refer to a hybrid world composed of humans and non-humans, and attempt to transform both game and life, with one assisting the other? If the project is successful then the users should move from a virtual experiment to a real life experiment, and witness positive results in terms of sustainability and peace. In this journey, both designers and users will need to overcome the designer fallacy and other obstacles.

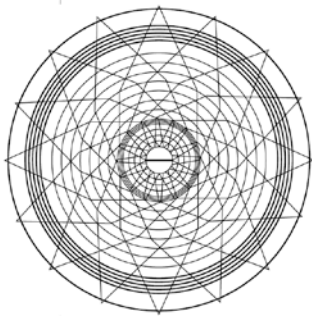
In parallel, the psychological elements of the project combine two opposing theories: one comes from behaviourism, and particularly Skinner's understanding that games and problem solving have the same mechanism; the other comes from SDT, according to which well-being and intrinsic motivation are enhanced when the basic needs of competence, relatedness, and autonomy are met.

At the theoretical level, this work may assist in extending postphenomenology, which has been criticised for the lack of critical analysis and political implications (Rao, et al., 2015). Combining postphenomenology and genealogy is a first step in this direction. Another expansion is from technology to game. The difference between mediation of experience to enablement of experiment may justify a new set of formulas that will follow Ihde's logic of the postphenomenological relations and that will be implemented it in the realm of games.

There is also an expansion to genealogy. This project urges genealogy to look forward and identify future-oriented solutions. So far, our regional politics has focused on "horror and honour", a double demand to acknowledge past events and to honour each party's history. The suggested methodology seeks to bypass this past-oriented discourse and instead promote the building of a joint future, or what I term "histories of the future." In the histories of the future there is a place for the past. The historical analysis functions as a "living lab" in order to assess what works and what fails in the local circumstances.

Lastly, the project offers new targets to game theory. Sustainability and peace-building can serve as "meta targets" for gamification. In pursuing these targets designers should not limit themselves to an anthropocentric view. Rather they should go after environmental well-being, which includes humans, organisms and their environment.

In the context of this project, Foucault is a source of inspiration not only for the methodology of genealogy, but also because he can inspire the process later on, as reflected in a quote from 1984: "A problem cannot be solved by a few theoretical proposals. It requires many debates, many experiments, many hesitations, attempts, and reconsiderations" (Foucault 1984, Interview by Catherine Baker, cited in Koopman, 2013, 98).



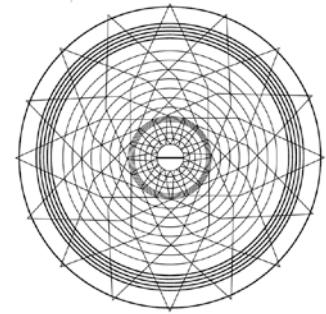
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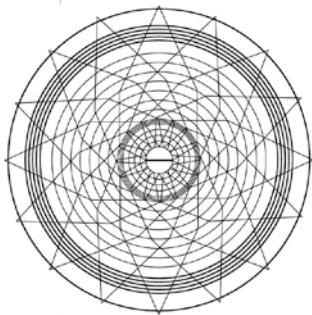
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## ГЕЙМИФИКАЦИЯ КАК ПОСОБНИК КОММУНИКАЦИИ

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### **Аннотация:**

Одна из целей миротворчества - способствовать коммуникации и устанавливать коммуникационные связи между людьми, которые не находятся в связи друг с другом. Коммуникация таких людей может быть построена на совместном интересе. Среди таких интересов могут быть экологичное и бережное использование ресурсов или меры по очистке водных резервуаров. Одной из главных сложностей в соблюдении этих интересов является набор и рекрут волонтеров, которые могли бы помогать в экологических акциях. Для этого необходимо преодолеть враждебность и подозрительность. Предложенное в статье решение заключается в использовании сотового игрового приложения, которое поможет в рекруте волонтеров через геймификацию заданий по очистке и охране водной среды. В статье проанализированы возможности игр стать стимулом для экспериментов со средой. Приведен анализ элементов такого приложения и игровых механик через геолокацию, социальные медиа и казуальные игры.

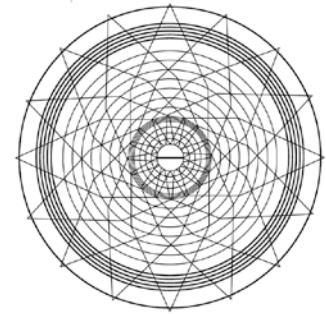
**Ключевые слова:** геймификация, гражданское общество, игра, междисциплинарность, постфеноменология, сохранение окружающей среды, водные ресурсы



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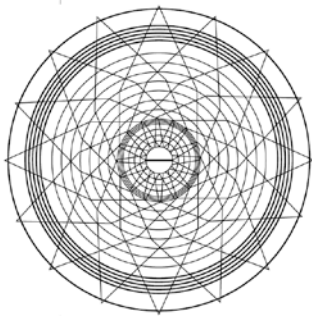
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