

A Hermeneutical Approach to Role-Playing Analysis

Popular Abstract - This is an article about viewing role-playing games and role-playing game theory from a hermeneutical standpoint. In other words, it presents one view on how a role-playing situation can be seen as a set of texts. That view also includes the idea of not only analyzing those texts, but also addressing the way game participants interpret those texts. On the side of role-playing theory, this article uses material from various schools of thought, from the post-Forge community to Nordic larp theory.

On the side of hermeneutics, emphasis is on Paul Ricoeur's idea of meaningful actions as texts. Those are the texts that people performing or observing that activity appropriate and interpret. The result of this article is one potential bridge between various schools of thought on looking at role-playing, including a translation platform capable of enabling the move of theories and research results from one role-playing culture to the next.

J. Tuomas Harviainen
University of Tampere
Finland
jushar@utu.fi

ABSTRACT

This article introduces a way of viewing role-playing games and role-playing game theory from a hermeneutical standpoint. It presents the necessary basics of analyzing role-playing phenomena and processes as a set of texts. On the side of role-playing theory, this article uses material from various schools of thought, from the post-Forge community to Nordic larp theory. On the side of hermeneutics, emphasis is on Paul Ricoeur's idea of analyzing meaningful actions as texts that are then appropriated by people performing or observing that activity. The result is one potential bridge between various schools of thought on looking at role-playing, including a translation platform capable of enabling the move of theories and research results from one role-playing culture to the next.

1. INTRODUCTION

The study of role-playing is currently at a problematic stage: It has reached a basic level of academic acceptance, but exists in a state of chaos. The three main reasons for the situation are the lack of general, shared research guidelines, the corruption of discourse tools, and subjective bias

on the field concerning both practitioners and outsiders studying role-playing.

The purpose of this article is to suggest one answer for the first problem and to bring attention to the second. The current situation can be likened to that of early analysis of cinematography: the subject itself is seen more often as a collection of pre-existing methodology and art forms, not as a separate phenomenon connected to those elements. (For more on this analogy, see Laws 1995.) This means that role-playing is currently studied as a semi-valid subject by experts of the connected fields, such as game studies, drama or text analysis, with the methods and perceptual limits of those fields. It is essential to note the progress that has been made by this set of approaches, but even more imperative to recognize the need to move beyond that level.

As one solution, I propose the construction and delineation of a core system of hermeneutics, an adapted version of traditional hermeneutics, for the purpose of further analysis of role-playing. "Hermeneutics" is the art of interpretation. In its most limited form, it is used as a reference to textual analysis of sacred scripture, but is more commonly seen as a general word for textual

interpretation (Palmer 1969). A few scholars have opted to extend this frame to include phenomenology, or even occasionally to refer solely to religious phenomenology (Phillips 2001). I have chosen to use the widest interpretative frame, the one covering text analysis, phenomenology and sociological aspects. Essentially, it is the reduction of an event or an experience into a text, the interpretation (or meaning) of which is then studied through text and symbol analysis.

What makes religious hermeneutics an especially suitable choice as a basis for more diverse forms of role-playing studies is the fact that it is one of the very few academic disciplines that deals with the entirety of the field on at least some levels. It covers things such as analysis of textual material and the study of personal, hard-to-communicate experiences without seeing them as a problem that needs to be corrected.

Before discussing the hermeneutical adaptations needed to studying role-playing phenomena, though, a brief look at the key phenomena themselves is necessary.

2. DEFINING ROLE-PLAYING GAMES IN GENERAL

For the sake of practicality, it is possible to categorize the basic premises of role-playing game analysis into three general types. There is an observable correlation between these approaches and the gaming types from which they originate, as well as with the types of role-playing preferences defined by John Kim and Ron Edwards (Kim 1998 and Edwards 2001) as Gamists, Narrativists and Simulationists (or GNS, as a collective term).

Definitions based on other forms of game analysis, especially that of digital games, focus on the elements of challenge and struggle that are to be overcome by the player in order to succeed in the game. By these definitions, role-playing games do not necessarily qualify as "games" because they lack a winning condition, or are classified as "limit case" games (Salen & Zimmerman 2004, Heliö 2004), despite containing game-like competitive elements.

Narration-oriented theory favors the storytelling aspect, usually paying special attention to game elements that support or hinder narrative and intrigue, such as systems (including, but not limited to, rules) and a game's internal and

external time-structure. This also includes analysis of role-playing games as performance, storytelling and/or discourse, such as Lancaster 1999 and Mackay 2001.

The Process Model of Role-playing defines the phenomenon as "any act in which an imaginary reality is concurrently created, added to and observed, in such a manner that these component acts feed each other" (Mäkelä et al. 2005). The Manifesto of the Turku School (Pohjola 1999) uses the words "immersion ... to an outside consciousness ("a character") and interacting with its surroundings." These exemplify a game presence-based idea.¹

Merely by looking at these outlines, it is quite easy to predict what the corresponding theories based on these particular premises will look like. This is a key point where the predisposition of role-playing analysts is at its most obvious. Therefore, in the interests of analytic objectivity, any definition of role-playing should also be seen as a conclusion of the respective author or as an analytic base assumption, not only as a discourse tool without bias.²

Most of the role-playing theory presented in this paper draws from the two major schools of thought on non-digital role-playing. The so-called Nordic larp theory circle, which, as the name implies, deals mostly with live-action role-playing, is the first one. It has an approach that fuses arts and academic research, often in an incompatible manner. The second one was originally centered on The Forge, a U.S. based community built around the works of Ron Edwards and with a favoritism (but not bias) towards tabletop-centric theory, especially design (as opposed to speculative theory). Since a restructuring of the site towards an even stronger emphasis on game design in December 2005, much of the theory-related discussions originating there have moved on to a loose community of blogs and small websites. Many of the theorists are still the same, as is the terminology they use. They are therefore still usually referred to as Forge-based, whether they agree on this view or not (for more on Forge theory, see Boss 2008).

For the purposes of presentation, this article uses a combination of the general elements of role-playing definitions and Baker's so-called Lumpley Principle ("system (including but not limited to

¹ Pohjola has later revised his position, and this out-dated view is here solely for exemplary purposes, not as a representation of Pohjola's current position (Pohjola 2004).

² Heliö 2004 offers a comprehensive look at differing forms of role-playing game definitions, and should provide a good starting point for those interested in pursuing this issue further.

“the rules”) is defined as the means by which the group agrees to imagined elements during play”, (2002), and treats role-playing as a process based on a social contract (as per Huizinga 1939 and Goffman 1961) where people create and modify a joint transitional reality through the use of agreed-upon tools. This social contract is constructed and enforced similarly to other social contracts, meaning that it is rarely made explicit (see Montola 2005), and is enforced only by social pressure.

“[I]n agreeing to draw up the contract, the people seem to possess already that which the contract was supposed to create. Further, the very notion of a contract presupposes an agreement about its sense. We can see that it is not the contract which makes possible that agreement, but an agreement in understanding which makes contracts possible. And that agreement is not based on a contract, since it is not an agreement which people decide to come to. Rather, it is an agreement which shows itself in their common reactions.” (Phillips 2001)

A factor affecting all basic interpretation on role-playing analysis is the formation of normative role-playing paradigms. They are local cultural preferences on what is to be considered as valid or good role-playing, as the basic requirements of role-playing or as valid study of role-playing. A paradigm can be just the size of a single playing group, or cover several countries. Role-playing theories are seldom directly applicable over paradigm lines, and require more adaptation the further the differences between paradigms are. What must be recognized, though, is that when a theory does not seem at all functional in a different paradigm, this may be due to the prejudices inherent to that receiving paradigm, faults in the theory, or a combination of both.

For example, any attempt to directly apply Edwards’ and Kim’s GNS-categories on a Nordic experientialist larp is impossible, due to that paradigm considering competitive play problem behavior rather than good role-playing. In essence, one part of the model would not be observable at all at play, whether it existed or not. Extrapolating from this that the model could not possibly be accurate on, say, some types of tabletop role-play would nevertheless be a glaring error of judgment and an act of prejudice. A similar case is Nephew’s (2003) view on role-playing as a manifestation of male sexual fantasies, which, while possibly accurate on North-American males, is quite incompatible with the fact that in some Nordic areas female larpers are a clear majority (Fatland

2005a). Yet another illuminating example can be seen by comparing the larp descriptions of Koljonen (2004) and Tan (2003).

One special case of paradigm is what I call the “anti-intellectualist movement on role-playing”. It is a loose, completely informal international school of thought that emphasizes the “simple fun” aspect of role-playing – adventuring, killing monsters, looting treasure and so on. (For an example, see Vuorela 2003-.) Its members’ reception of any role-playing theory, especially of the non-design kind, is generally very negative.

One’s native playing paradigm thus usually forms the interpretative basis, resulting in a biased

In the interests of analytic objectivity, any definition of role-playing should also be seen as a *conclusion* of the respective author or as an analytic base assumption, not only as a discourse tool without bias.

analysis of both role-playing and role-playing theory. This, however, can be at least partially bypassed through the use of hermeneutical methods.

3. BASIC HERMENEUTIC ADAPTATIONS FOR ROLE-PLAYING ANALYSIS

“The evolution of author from distinct to aggregate has encompassed not only fiction writers and the original creators of the RPG genre, but also subsequent designers who borrow from material from each other, the editors and publishers of these games, the hobby’s fan community, GMs and players who reinterpret texts for their own purposes, and the social environment in which they are created. In this way it becomes apparent that the roleplaying experience is inherently the result of multiple subjectivities, breaking the illusion of a purely objective meaning.” (Nephew 2003)

In trying to understand a subject of study, be it text or a phenomenon, we are already using a set of pre-understandings. We are aware of some of those. Others are sub-conscious. Both nevertheless affect our understanding of the subject at hand, leading to a predilection towards an interpretation closer to those expectations than the subject would actually warrant. One of the key ideas of hermeneutics is the deconstruction and illustration of such pre-understandings, leading into either a

more objective state of interpretation, or a clarity of the true meaning, of what is being studied.

We do, however, simultaneously need the pre-understandings, as they are what gives us the initial approaches we need to start interpreting. So what happens is not the direct abolishment of prejudices, but rather a refinement and relinquishing of them as needed, the closer we get to our subject of analysis. This phenomenon, combined with the need to understand a whole in context to its parts, and parts of a whole in context to that whole, is called the Hermeneutical Circle. (Jeanrond 1997)

What opposes the process is the need of an interpreter to hang on to his previous beliefs, to defend his own particular interpretation. This is usually caused by ideological reasons, but in the case of role-playing analysis, a secondary, nearly as important cause is a phenomenon I call "theory canonization". Theory canonization happens when a singular interpretation gains a position of dominance within a gaming paradigm. It is a predilection to use the discourse tools of that dominant interpretative frame to explain and appraise new games and new theoretical material, both from within the native paradigm and coming from outsiders. It is initially born as a beneficial effect, allowing the translation of concepts between paradigms into a more easily understood form.

Yet build-up of using only the terminology of one paradigm eventually starts imposing the dominant theory's parameters on the process of interpretation, leading to appraisal on the basis of how well the new material fits to the dominant ("canonized") model. A curious part of this is that the phenomenon mostly affects people who produce material ancillary or complementary to the dominant theory. The authors of the dominant theories themselves are usually more resistant to this pattern of thought, but are naturally affected by what they see as criticism of their own work, which in turn reinforces the effect. This is most easily visible, in relatively mild form, in the forum archives of the Forge³, but the phenomenon exists in all game analysis communities. The process is not a prejudice, and should be seen as an unintentional corruption of discourse tools instead. The risk of misinterpretation escalates further when material created using one paradigm's corrupted tools is analyzed with those of another.⁴

³ www.indie-rpgs.com

⁴ A good example of the first level of this transformation can be found by analyzing Lehrich 2004. Another effective example is the thread "Something I cooked up, a model if you like" on the Forge (<http://www.indie-rpgs.com/viewtopic.php?t=9690&start=0>). For criticism within and on the Nordic sphere of theory, see Harviainen 2004.

The pre-understanding affects not only reception but also the presentation of findings, up to and including the language used. Assessing the scope of this problem in the study of role-playing is problematic in itself, since there's a significant risk of ending up in ad hominem criticism, and certainly even higher risk that even constructive commentary is interpreted as an ad hominem attack. A further obstacle is created by the "mandatory respect of others' viewpoints" policies of U.S.-based forums, as well as the art studies – based approaches of many Nordic theories. Both of these lead to any questioning of interpretative motives being seen as a breach of the code of conduct and/or a personal attack.

All findings, potential theory and new methods must therefore be either acknowledged as having a limited view by their authors themselves or presented in such a manner that all possible interpretations are taken into account. The first option can be accomplished by statements such as "this model is designed using tabletop role-playing material, and has not been tested on other platforms". The system presented here is intended as a tool enabling the addressing of the latter.

From a hermeneutic perspective, role-playing games consist of the intentional evocation of artificial experiences through the use of fictional characters as masks/identities/personas (for more on the play-theory ideas this view is based upon, see Huizinga 1939). The evocation is autotelic by nature, i.e. enjoyment-creating by itself – as long as the game is good, at least (Harviainen 2006). In addition, through their experientiality and autotelicity role-playing games convey new information and create new correspondences between existing social and mental connections. Role-playing is a form of heuristic fiction. It is a metamorphosis that creates simultaneously a selection of characters/figures and a transformation into a new state of temporary "true" being. In that new state, everything follows an internal (diegetic, i.e. "true within the context of the story") system where everything works directly upon indexical and symbolic concepts (as per Loponen & Montola 2004), transforming basic representations into a fantasy reality. (For variables on what types of realities are constructed and how, see Montola 2003).

The only level of in-game interpretation is that of *imaginatio*, which works on similarity. There is no need for *intellectio*, thought based on sameness (as per Ricoeur 1975). Essentially, role-playing functions by participants imagining things in a reasonably compatible manner (Montola 2003). Within the *diegesis* there may of course be elements that in some sense require the player's or character's *intellectio*, such as objectives or puzzles, but the lack of precisely defined elements means that those too belong, in this case, rather to the realm of *imaginatio*. In this sense, the Process Model's definition of the totality of the event field in a role-playing game as a "Shared Space of Imagining" is actually a very correct term (Mäkelä, et al. 2005).

From a hermeneutic perspective, role-playing games consist of the intentional evocation of artificial experiences through the use of fictional characters as masks/ identities/personas.

In this, role-playing follows Gadamer's theory on play (Gadamer 1972). The core nature of the gaming experience is still different, even when the outward forms are the same. A similar border can be drawn on other connections as well, which in turn gives us an apophatic ("what it is not") definition of the field we are studying. These affirmations through negation have been, and will be, subjected to heavy debate, as their criteria may vary from person to person. For example, the question on whether role-playing is a form of art or has the potential for being art has more to do with each commentator's own concepts for what constitutes art than with any intrinsic trait of the activity of role-playing (Mackay 2001). In this, the debate very much resembles the one that was had about a very similar phenomenon, *avant-garde* performance / concept art of groups such as the Fluxus movement and the no-audience Activities in the 1960's (Kaprow 1966, Kirby 1987 and Harviainen 2008). Again, these factors constitute a part of the general pre-understanding.

In extremely simple apophatic terms, ones that are undergoing constant criticism (also from the author of this article), role-playing in its live form is not "proper" theatre because there is no audience (as per Kirby 1987; see also Flood 2006). Nor is it

psychodrama, as it lacks a narrative matrix directly tied to a desired function (Flood 2006; Sonesson 2000).⁵ In no platform is it normally traditional gaming, as there is no winning condition included, even though some players may perceive it to contain one (Salen & Zimmerman 2004, Heliö 2004 and Edwards 2003). The one exception to this exists in the form of certain intentionally competitive games, a phenomenon thoroughly described by Tan (2003). There is a conscious, pre-planned structure that differentiates it from child's play, despite potentially sharing similar concepts of space and methods of arbitration. (See also Morton 2006 for further debate on defining role-playing on these terms.)

Role-playing may resemble certain rituals very closely (Lehrich 2004), but is again a separate phenomenon by virtue of it not having "unyieldable material" (such as Articles of Faith) that must at all times be taken into account. What also separates it is that it in many cases only provides liminoid, but not truly liminal, experiences. It removes the participants to a different temporary reality, but usually not completely. The liminoidity is in the case of role-playing games nevertheless far closer in nature to actual ritual liminality than it is to "common" liminoid phenomena such as following a football match (Lieberoth & Harviainen 2008). Thus, in some sense, it could just as well be described as a low-intensity liminal experience, if one wants to follow another set of ritual theory terminology. It takes place in a state continuous with mundane reality, but separated from it.

There is a strongly interpretative, semiotic and textual side to all role-playing games, yet to treat a role-playing situation solely as a singular text removes a part of the game experience from the equation. (For more on the question of reduction into text and the subsequent loss of experiential elements, see Aarseth 1997.) And role-playing is never a state of pure imagining, because the player is always connected simultaneously to both the *diegesis* and the real world. Contrary arguments by players who support a divisive character view (Harviainen 2006) exist, but no data has been provided in support of them. On some levels the player is purely imagining, on others completely in the real world. And this is the key to approaching role-playing as a whole from a hermeneutic perspective: the reduction into text can be made, by

⁵ Sonesson's text is very superficial and somewhat prejudiced on the scope and history of role-playing, but is nevertheless a useful tool on differentiating the limit-case activities with which (especially live-action) role-playing is often compared.

understanding that there is more than one text to reduce to.

Given the dual level of mental presence in a role-playing game, it is not possible to apply the normal methods of either hermeneutics or phenomenology on that experience. The role-playing Dasein (a person's summary existence in the historical continuity) is on several levels an artificial one, and therefore looks as if it has to be analyzed in context to the diegetic reality. Likewise, diegetic elements, or ephemera in Edwards' terminology (2004), seem to make complete sense only when interpreted through the diegetic whole. It would thus be very tempting to apply Durkheim's (1895) idea of social things only being possible to explain through other social things. Were all role-players totally immersive and using solely the divisive character state (i.e. totally committed to their fictional personas) while in-game, this would apply. However, as several theorists have suspected, and occasionally shown (Harviainen 2006), all are not. As player motivations of various kinds, as well as their relationship to ephemera, form another important part of the pre-understanding, some discussion of them is necessary here.

For example, according to Edwards (2001-, based on Kim 1998), players can be classified according to their Creative Agendas (CA) as Gamist, Narrativist or Simulationist, with each of these types having a favored form of playing that gives them the most enjoyment. The CAs consist of several levels of motivation, but focus mainly on the in-game expectations of the players.

In general, role-playing game motives can be further divided into three categories. External participant motivations (EPM, "why do I play") contain reasons such as having fun, escapism and social contact. Internal participant motivations (IPM, "what do I want to experience in the game") may be both diegetic and non-diegetic motives, such as conflict, drama, sense of triumph. And Character Motivations (CM), which include every desire a character has, are completely diegetic (Harviainen 2005). In these terms, Edwards' Creative Agendas represent IPM that are affected by EPM concerns and manifest through both CM and arbitration on the collective diegesis. On the interaction of these intents are built the interpretative frames and overall narrative choices that the game participants make. Platform changes affect the player/CA relationship – a player who is always highly gamist in any tabletop or online role-playing game can nevertheless be a simulationist in a larp environment. Reasons for

this potential change arise from both local game paradigms and the intrinsic game presence differences of the platforms themselves.

A parallel system to deconstructing role-playing into exogenous (player-brought), endogenous (inherent to game) and diegetic (in-game) goals also exists (for this division system, see Montola 2005). As the motivator system concentrates on the types of goals while the e/e/d system concentrates on the origin points of goals, and as both systems are fully compatible and may produce synergetic results, I have noted both factors at points of analysis where they coincide.

The completely exogenous EPM factors are the primary framework of Fine's interpretation of role-playing (Fine 1983). They exist on a social, real-world level. In contrast to them, the completely artificial CM factors are fully diegetic. A borderline exists somewhere on the point of IPM factors, which are partially or fully exogenous. Their effects are nevertheless always articulated into the diegesis in peridiegetic discourse, i.e. spoken as external descriptions that create or alter diegetic elements and events.

There is a strongly interpretative, semiotic and textual side to all role-playing games, yet to treat a role-playing situation solely as a singular text removes a part of the game experience from the equation."

It is, however, quite obvious that a degree of peridiegetic manipulation (i.e. manipulation reaching from a frame of play outside the diegesis into that diegesis) exists. Outside influences intrude on play, and vice versa. The exogenous EPM expectations and at least partially non-diegetic IPM expectations of players intrude on narration, and on the endogenous motives defined above as diegetic IPM and CM. In this regard, they indeed form Agendas, as Edwards has observed. These agendas affect the in-game choices, both narrative and character, and distort the theoretically diegetic logic. Thus it is possible for ephemera to make sense on a purely diegetic level (an example of this would be a joke the characters would get but the players would not.), peridiegetically (as tools of external descriptions that create or alter diegetic elements and events) or purely non-diegetically. The last of these three types, it must be noted, contains both "bad

playing” in the sense of actions that a player likes but make no sense in the game’s continuity, as well as the addition of seemingly illogical ephemera in the interests of enhancing the game. Thus it should not be discounted, as it too is occasionally a proper, beneficial form of playing.

Ephemera cannot therefore be reliably analyzed in a vacuum, or on purely diegetic or non-diegetic grounds. It is possible to treat them that way in the context of certain kinds of role-playing studies, such as when making a reading of a game session or studying the game as a singular narrative. (Kellomäki 2003 is a good example of this method.) In those cases, this is a valid approach, but must be acknowledged as not telling the whole truth. In relation to this, it is also worth noting that post-game reports by players have a tendency to eventually transmute into dominantly diegesis-based reasoning, even if this were not actually the truth. A player-competitive choice may later on be explained as “logical for the character”, regardless of whether it actually was, for example. In hindsight most actions are reported as having been influenced by in-game reasons only. This is in no way contradictory with the idea of also emphasizing the “everyone should have fun” aspect of games, and perceptions on what the “best way to play” is are usually a mixture of these criteria. Digital role-playing games are an exception to this rule. They are often directly opposite to it, in fact: most actions are stated as originating because of meta-level concerns (see Yee 2006 for details).

Within the game’s internal reality, ephemera must always make sense. Within, and only within, the configurational properties of the artificial diegetic reality which they belong to do they function perfectly. In other words, for the characters the ephemera are always real and always follow the natural laws of their reality. Taken out of that context, ephemera lose their inherent perfection and must be treated as analogies, often dysfunctional ones. When introduced into a diegesis for purely external reasons, ephemera may not be diegetically logical, but are nevertheless a working – or at least tolerable – part of the continuity. If they are not, the game breaks, and an arbitration process is undergone to solve the problem.

The complexity of analytic permutations in role-playing is vast, yet very simple. Through one reductionist approach, game elements can be confined to a single level of actuation for the purposes of study. This is what has often actually been done in role-playing studies thus far, but

mainly without acknowledging the fact. The next step is to relinquish the absurd idea of being able to directly extrapolate from one game platform to the next, from diegetic level to another or from one game element to others. Larp and online role-playing, for instance, may share many traits, but they are not identical experiences. By analyzing their inherent texts, however, we can see where the play-experiences differ (as opposed to the easily observable physical differences of the mediums). Without accepting existing limitations, even useful, parametric research is rendered invalid – not in content, but at the point of reception. When a researcher acknowledges the limits and deals with them accordingly, he is then able to draw in factors from other actuation levels (for an exemplary example of such work, see Faaborg 2005).

A completely different, highly profitable line of research is the analysis of role-playing games as a form of other phenomena. While seemingly contradictory to the apophatic approach described above, it is actually complementary. Through looking at role-playing games as text, ritual, game or theatre, it is possible to see where they differ from their counterparts, and where they are identical. This is the process used in most of current-day role-playing analysis. It is partially caused by the different and often almost incompatible academic and scientific backgrounds of the analysts, and partially due to the simple fact that in a field with no analytic tradition of its own, the best methods are usually found in the fields it overlaps. Through the use of hermeneutics, even these methods can be combined with apophatic and reductionist approaches.

There is one common risk in using the non-apophatic approach: exclusion by definition, which is another type of discourse tool corruption. By defining that role-playing is something, researchers may close their results off from being compatible with others (Harviainen 2008). For example, there is a strong difference between an analysis saying “role-playing is performance” and analyzing role-playing “as a performance. The latter can be combined with other approaches, the former solely either approved or refuted.

4. REDUCTION BY LAYERS

The second reductionist approach seeks to treat role-playing games according to Ricoeur’s idea of “meaningful action as text”, due to the similarity of Ricoeur’s idea of “appropriation” and the interpretative system used in role-playing. A form of activity is treated as if it were a metaphor-filled

story, which the performers and observers of that activity then interpret from their own perspective.

“My claim is that action itself, action as meaningful, may become an object of science, without losing its character of meaningfulness, through a kind of objectification similar to the fixation which occurs in writing. By this objectification, action is no longer a transaction to which the discourse of action would still belong. It constitutes a delineated pattern which has to be interpreted according to its inner connections. This objectification is made possible by some inner traits of the action which are similar to the structure of the speech-act and which make doing a kind of utterance. In the same way as the fixation by writing is made possible by a dialectic of intentional exteriorisation immanent to the speech-act itself, a similar dialectic within the process of transaction prepares the detachment of the meaning of the action from the event of the action.” (Ricoeur 1981)

To that text we then pose Ricoeur’s “properly hermeneutical question”: “what does the text say to me and what do I say to the text”. This is done from both the perspective of the analyst and the perspective of game participants.

As a role-playing game exists on several layers at once, all layers must be deconstructed if one wants to find a holistic interpretation of a gaming experience. For this we need both hermeneutic tools and knowledge of the things briefly discussed in the preceding chapters. Through knowing how a diegesis is constructed and how a player potentially perceives it, we can transfigure both the diegesis and the perception into texts. Essentially this means “backtracking” them to a base set of texts that has never actually existed! Yet by creating these artificial “originals”, we can see the interpretative processes at work in a game.

Furthermore, by understanding which parts of these processes other role-playing theories assess, and to which parts we can apply theories from other fields, we have access to the tools earlier research has created and the ability to use them as synergic parts of the holistic analysis. Or, as an equally valuable option, the wisdom to see how to concentrate on analyzing just one or two layers without drawing too far-reaching generalizations from that analysis.

Each layer has some key traits that need to be addressed in a hermeneutical context. Counting inward, the layers discussed here are: 1. the

completely exogenous level where participants’ social interaction and external motivators (EPM) exist; 2. the level of exogenous internal motivators (IPM) and meta-game dialogue, 3. the level of subjective diegeses and their interplay, and finally 4. the world the characters live in. Note that this categorization has been selected for typological reasons only, and is based on motivator theory (as per Harviainen, 2005) with some extensions being influenced by Kellomäki’s (2003) four layers. This is due to levels such as rules not being assessable by themselves as text, meaning they are subsumed into other categories so that they can exist in an interpretative context. In contrast, Fine (1983) uses a system of three frames, while Mackay (2001) uses five. Fine’s and Mackay’s categorizations, rather than the one here, may actually be more appropriate for research concentrating on a single layer of the role-playing experience. (On Fine’s frameworks’ correspondence with the e/e/d system, see Montola 2005.)

All of these layers (and many other potential ones), regardless of definition systems, normally exist simultaneously in a game. Game breaks are moments when activity on certain levels is temporarily frozen so that participants can concentrate on discussing events more thoroughly on a level closer to the real world. The layers always freeze in order, starting from the world of the characters and proceeding to the level needed. A break in all layers means the game has been completely suspended or ended.

The basic building blocks of the layers are discourse and imagination. The former produces material for the latter and dictates the ways in which it changes. The discourse itself is fleeting, but it creates ongoing texts that create the whole role-playing experience. It is realized as event but understood as meaning (Ricoeur 1981). Thus each temporary social frame (as per Goffman 1974) in a role-playing game can essentially be read as a layer of text.

On the first level, all activity happens in the real world. Players are motivated by real-world concerns only, and their presence in the world’s continuity (Dasein) is subject to normal rules. Ethical choices are made from a real-world perspective. On this layer, the text exists in the interplay between participant choices, as expressed by their motives. The diegesis does not exist on this level at all, but may be discussed in general terms nevertheless.

On the second level, meta-dialogue about the game appears. For much role-playing analysis, it is this

level that is considered the most important. The meta-dialogue is formed of the events on the diegetic level, IPM factors the participants bring with them (including their Creative Agendas, genre conventions, etc.) and semi-random interruptions coming from the first (social) layer. This is the level of the structure of the game, and that is its primary text. The participants interpret the interplay and use it as a basis for the construction of their subjective diegeses. On this level, choices take on narrative qualities inspired by fabula (story seeds, as per Fatland 2005b) and ethical views become relativist, adaptive to the needs of the game. Pre-understanding about the game's style and conventions becomes manifest, and is openly discussed. On this level players are in connection to the diegesis, but their discourse takes place outside it.

The third level consists of IPM factors being transformed into character motivations (CM), the actualization of fabula and ephemera, and the interaction between the way players imagine the transitional space. It is also the level on which the players' views intermingle through intericonicity and create a roughly equifinal whole. ("Every participants' mental image of the sword is sufficiently similar", as per Adelsten 2002 and Lojonen & Montola 2004). Each subjective diegesis is a text by itself, built according to personal preferences, platform requirements and narrative needs. Much of what was discussed in the previous chapters is aimed at understanding what happens on this level. Players build the texts (analogous to but not the same as their subjective diegeses) they work with through those methods. Note that all this is still only a "text" as per the confines of "meaningful action as text", even if recorded. Depending on the character relationship of the particular players, their primary Dasein is either the artificial based on the assumed collective diegesis, or a mixture of their real continuity presence and the artificial one.

The second and third layers are about role-players appropriating material that the other participants introduce to the game, and then applying it to the present game situation. An element of distanciation transfigures the material into the players' own when it is processed in between appropriation and application.

"[I]nterpretation 'brings together', 'equalises', renders 'contemporary and similar', thus genuinely making one's own what was initially alien." (Ricoeur 1981)

Therefore a game participant does not actually understand the complete meaning of the material, but rather transforms it into his own interpretation, in which form it is injected back into the diegesis and/or meta-game – and then possibly appropriated by the others again, creating a feedback cycle.

The fourth level is the world in which the characters "actually exist". It is the only layer that would be real for them, and in which events would proceed in an order and manner completely logical within the diegetic frame. The players may speak of this level, but they never actually come in contact with it. It is a theoretical construct that does not actually even exist, but it must nevertheless be treated as "real" for the purposes of analyzing the game as a whole.

Within the fourth layer, the characters have a Dasein that is completely artificial yet diegetically logical, and all ethical choices are based on diegetic reasons. This level is pure diegesis. It is also a pure, singular text – one story – and can thus be subjected to all traditional literary analysis. In other words, the diegetic events that are never truly reachable by game participants or analysts, elements that would be real to the characters, can theoretically be reduced into a singular story consisting of the personal stories of each character. This so-called Lehrsikovian reduction takes the events of the game and treats them as if they were something that was intended to happen – the events are handled as if they were meant to form a pre-written story (corresponding with the concept of Chance in art, as per Kaprow 1966). Those events of that one story (or each one of the characters' stories, for that matter, should those be chosen) could then be analyzed like any other story, and be subjected to the methods of story-theorists like Auerbach, Bettelheim or Campbell, in order to determine the influences that created it. While the story is not truly accessible, reliable approximations of that story can nevertheless be constructed by game participants for this purpose, or for the purpose of entertainment (Lehrsikov 2007).

Though the fourth layer may contain observable properties from player motivations, genre conventions, etc., those elements are simply "that which happened" from the perspective of the characters. The characters experience things from levels one to three, but only as they extend to the fourth layer (game systems as natural laws of the universe, or luck, etc.)

So on one hand, phenomenological analysis of the diegetic world is impossible, but on the other hand the phenomena in it can be fixed into a singular factual nature, if the players all agree upon them on the second layer. Everything happening in the fourth layer is an emergent property of the three other layers, a phenomenon that makes adapting hermeneutics to analyzing role-playing diegesis itself easy.

“[W]hat must be interpreted in a text is a proposed world which I could inhabit and wherein I could project one of my ownmost possibilities. That is what I call the world of the text, the world proper to this unique text.” (Ricoeur 1981)

Following this template, an immersive player empathizes so strongly with her image of the fourth layer that she suppresses her awareness of the other layers. In reality, however, her primary “self” is on the third layer and is affected by meta-level concerns. The fourth layer is never reached by participants during the game. It is an idealization. In contrast, a competitive player’s primary activity layer is the first or the second, depending on whether he prefers triumphs over other players or over in-game obstacles created by the game master. Highly story-oriented players mostly favor the second and third layers, the former providing the necessary narrative clues and the latter being the place where those are actualized. In these terms, the turn-of-the-millennium Nordic experientialist ideal means that players are expected to see their characters as filters through which they experience the third layer and have that experience reflected all the way to the first layer.

For hermeneutic game analysis, all this means that each game has a number of sets of texts and their corresponding interpretations, in the example case of this article four sets. By knowing those origin points and end results, the gaming process itself can be treated as interpretation done by the participants, and analyzed as such. This reveals to us how a player experiences her game and what elements affected that experiencing process, the personal hermeneutic circle the player used for the duration of the game. That part can be subjected to all normal analytical methods, and will produce a reliable picture of what happened during a game on all levels. Furthermore, it will lead to an understanding of the underlying matrix of the role-playing process, and the recognition of dependent variables its structure is based upon – including, but not limited to, social, cultural and language influences that affect all ritual activities. (For more on dependent variables, see Goodman 1988, and

for role-playing as ritual, see Lehrich 2004 and Lieberoth & Harviainen 2008.) By nature the texts role-playing deals with are not autonomous and can thus provide a way to analyze their basis.

“To understand an author better than he understood himself is to unfold the revelatory power implicit in his discourse, beyond the limited horizon of his own existential situation.” (Ricoeur 1981)

From the perspective of traditional hermeneutics all this is of course problematic. The base text is not truly accessible and the interpretations will be subjective and incomplete if and when they are explicated to a researcher. That, however, is an unavoidable trait of all academic interpretation. Analyzing role-playing in this manner does provide a positive contribution to hermeneutics, though: by refining this approach, it will eventually be possible to use it to conduct test-runs into methodology. Role-playing provides a way to know to a greater than normal extent the text and the interpretation, the available information at play, as long as the fabula are observed in advance and ephemera introduced in a controlled manner (Harviainen 2007). Therefore it can be used to measure whether certain analytic forms reveal traits that are known to exist, something that is usually impossible in relation to a static text. In using hermeneutics to analyze role-playing, one should always adhere to Gadamer’s validity principle on hermeneutics: if you can apply the theory to the subject at hand, you will have to call it valid until you are proven otherwise (Gadamer 1972, adapted here from Adelsten’s (2002) application of the principle to studying visual arts).

Overcoming the problems of the first part of pre-understanding, that of seeing role-playing games as something or other in advance, is relatively easy. The second part, the ability to assimilate the work done on the field by others without defaulting to one’s own work as the primary measuring stick, that is the true testing point of whether role-playing studies can rise to an academic level. Until that point of interpretative understanding is reached, all studies on role-playing are just personal opinions of their authors, existing in vacuums. They may be correct beyond their bounds, but there is absolutely no way of knowing for sure.

That an individual theorist’s apparently successful work can be traced back to his or her theories is good, but not enough without the potential for further adaptation to other paradigms and/or platforms. Good examples of such single-platform

vectors can be observed in the correlation between Edwards' theories and the games he has published, and in the theories and game descriptions present in the Nordic larp yearbooks. Valid models and findings that cannot cross cultural barriers are not valid research on role-playing itself, they are valid research on a particular type or way of role-playing.

This is where the hermeneutic circle comes in again: as noted, pre-understanding is needed for the interpretation to begin. The trick to doing the work completely is in knowing how the pre-understanding limits one's work, and making the correct extrapolations thereof. Research on small points of the gaming experience are not only welcome, they're absolutely necessary for the wider work. They are the steps the road to understanding the complexity of the phenomenon are based upon – so long as those steps are not inflated into walls obstructing further progress.

Thus the need to seek ways to translate findings, theories and models into forms in which they can be compared and possibly combined, exists. The hermeneutic approach will not solve the problem, but it will allow a deeper comprehension of how the patterns interlink. In many cases it is not a research tool, but rather a complementary tool – showing for example how the frames of play documented by Fine, Kellomäki and Mackay form and function as personal texts, thus making them truly compatible with what has been said about player preferences. Without that understanding, regardless of from which methodology it comes, they are just descriptions of play behavior without any deeper meaning.

5. CONCLUSION

This article has presented a view of role-playing games as a set of interactive texts interconnected with frames, the interpretation of which is in itself enjoyable to the game participants. The interpretation takes place in a particularly strong liminoid state resembling a ritual, or a ritual state. Some of the discourse layers are imaginary, others are solidly grounded on real-world issues. A game's structure is built from the interaction of the participants' interpretations and the arbitration of conflicts the differing interpretations cause.

As a whole, a role-playing event is an interactive text in which the current situational context – including both the diegetic and the exogenous situation in their entirety – creates the primary frame in which the interpretation process takes place. In essence, the game is a convergent

medium, a focal point of shared interpretations done for the sake of mutual enjoyment.

Participants inject elements into the diegesis based on their non-diegetic desires, and reap medial, autotelic benefits if they do it well.

These texts and the participants' interpretations can be used as a basis for analyzing role-playing as if it were a special form of metaphoric reading. For the analysis to be possible, the processes through which role-players interpret the game texts must be

In essence, the game is a convergent medium, a focal point of shared interpretations done for the sake of mutual enjoyment.

understood. The same goes for the analytic tools currently in use. When that understanding is reached, it is possible to also translate other research on role-playing into a semiohermeneutic form through which a new potential for combining seemingly incompatible findings and theories becomes available. In my opinion this is the closest we can get to understanding role-players' actual experiences – at least until scientifically valid clinical psychological tests can be made. And even then, this approach will have provided data that can be used to know what to look for.

REFERENCES

- (1) Aarseth, E., 1997, *Cybertext. Perspectives on Ergodic Literature*. Baltimore: John Hopkins University Press.
- (2) Adelsten, N., 2002. *Interikonicitet. En semiohermeneutisk studie*. Doctoral dissertation. Lund: Lunds Universitet.
- (3) Boss, E. C., 2008, Key Concepts in Forge Theory. In M. Montola & J. Stenros, eds. *Playground Worlds. Creating and Evaluating Experiences of Role-Playing Games*. Jyväskylä: Ropecon.
- (4) Durkheim, E., 1895/1927, *Les règles de la méthode sociologique*. Paris: Alcan.
- (5) Edwards, R., 2001, *GNS and Other Matters of Role-playing Theory*. Adept Press. www.indie-rpgs.com/articles/1/
- (6) Edwards, R., 2003, *Gamism: Step On Up*. Adept Press. www.indie-rpgs.com/articles/21/
- (7) Edwards, R., 2004, *The Provisional Glossary*. Adept Press. www.indie-rpgs.com/_articles/glossary.html
- (8) Edwards, R., 2005, Personal correspondence.
- (9) Faaborg, M. L., 2005, Quantifying In-Game Economy. A Contribution to the Analysis of

- the In-game Economy of Larp Events. In P. Bøckman, & R. Hutchison, eds. *Dissecting Larp. Collected papers for Knutepunkt 2005*. knutepunkt.laiv.org/kp05
- (10) Fatland, E., 2005a, Knutepunkt and Nordic Live Roleplaying: A Crash Course. In P. Bøckman, & R. Hutchison, eds. *Dissecting Larp. Collected papers for Knutepunkt 2005*. knutepunkt.laiv.org/kp05
- (11) Fatland, E., 2005b, Incentives as Tools of Larp Dramaturgy. In P. Bøckman, & R. Hutchison, eds. *Dissecting Larp. Collected papers for Knutepunkt 2005*. knutepunkt.laiv.org/kp05
- (12) Fine, G. A., 1983, *Shared Fantasy. Role-Playing Games as Social Worlds*. Chicago: University of Chicago Press.
- (13) Flood, K., 2006, The Theatre Connection. In T. Fritzon & T. Wrigstad, eds. *Role, Play Art. Collected Experiences of Role-Playing*. Stockholm: Föreningen Knutpunkt. jeepen.org/kpbook/
- (14) Gadamer, H.-G., 1972, *Wahrheit und Methode. Grundzüge einer philosophischen Hermeneutik*. 3. erw. Aufl. Tübingen: Mohr.
- (15) Goffman, E., 1961, *Encounters. Two studies in the sociology of interaction*. Indiana: Bobbs-Merrill.
- (16) Goffman, E., 1974, *Frame Analysis. An Essay on the Organization of Experience*. Cambridge: Harvard University Press.
- (17) Goodman, F. D., 1988, *Ecstasy, Ritual and Alternate Reality. Religion in a Pluralistic World*. Bloomington: Indiana University Press.
- (18) Harviainen, J. T., 2004, Deconstructing Larp Analysis, or: "Let's Recognize a Bias Where There Is One." In M. Montola & J. Stenros, eds. *Beyond Role and Play: Tools, Toys and Theory for Harnessing the Imagination*, Helsinki: Ropecon. www.ropecon.fi/brap
- (19) Harviainen, J. T., 2005, Corresponding Expectations. Alternative Approaches to Enchanted Game Presence. In P. Bøckman, & R. Hutchison, eds. *Dissecting Larp. Collected papers for Knutepunkt 2005*. knutepunkt.laiv.org/kp05
- (20) Harviainen, J. T., 2006, Information, Immersion, Identity. The Interplay of Multiple Selves during Live-Action Role-Play. In *Journal of Interactive Drama*, 1 (2). www.rpg.net/larp/journal/archive/IDJ_1_2_2006_10.pdf
- (21) Harviainen, J. T., 2007, Live-Action Role-Playing Environments as Information Systems. An Introduction. In *Information Research*, 12 (4). informationr.net/ir/12-4/colis/colis24.html
- (22) Harviainen, J. T., 2008, Kaprow's Scions. In M. Montola & J. Stenros, eds. *Playground Worlds. Creating and Evaluating Experiences of Role-Playing Games*. Jyväskylä: Ropecon.
- (23) Heliö, S., 2004, Role-Playing: A Narrative Experience and a Mindset. In M. Montola & J. Stenros, eds. *Beyond Role and Play: Tools, Toys and Theory for Harnessing the Imagination*, Helsinki: Ropecon. www.ropecon.fi/brap
- (24) Hendricks, S. Q., 2006, Incorporative Discourse Strategies in Tabletop Fantasy Role-Playing Gaming. In P. Williams, S. Hendricks & K. Winkler, eds. *Gaming as Culture*. Jefferson: McFarland.
- (25) Huizinga, J., 1939, *Homo Ludens; Versuch einer Bestimmung des Spielelementes der Kultur*. Amsterdam-Leipzig : Pantheon akademische Verlagsanstalt.
- (26) Jeanrond, W. G., 1994, *Theological Hermeneutics. Development and Significance*. London: SCM Press.
- (27) Kaprow, A. 1966, *Assemblage, Environments & Happenings. Text and Design by Allan Kaprow. With a Selection of Scenarios by: 9 Japanese of the Gutai Group, Jean-Jacques Lebel, Wolf Vostell, George Brecht, Kenneth Dewey, Milan Knížák and Allan Kaprow*. New York: Harry N. Abrams.
- (28) Kellomäki, J., 2004, *Simulaatio ja kerronta – roolipeli ergodisena järjestelmänä*. Master's Thesis for University of Helsinki.
- (29) Kim, J., 1998, *The Threefold Model*. www.darkshire.net/~jtkim/rpg/theory/threefold/
- (30) Kirby, M., 1987, *A Formalist Theatre*. Philadelphia: University of Pennsylvania.
- (31) Koljonen, J., 2004, "I Could a Tale Unfold Whose Lightest Word Would Harrow up Thy Soul". *Lessons from Hamlet*. In M. Montola & J. Stenros, eds. *Beyond Role and Play: Tools, Toys and Theory for Harnessing the Imagination*, Helsinki: Ropecon. www.ropecon.fi/brap
- (32) Lancaster, K., 1999, *Warlocks and Warpedrive. Contemporary Fantasy Entertainments with Interactive and Virtual Environments*. Jefferson: McFarland.
- (33) Laws, R., 1995, The Hidden Art: Slouching Towards A Critical Framework for RPGs. In *Inter*Action*, issue #1. www.rpg.net/oracle/essays/hiddenart.html
- (34) Lehrich, C., 2004, *Ritual Discourse in Role-playing Games*. www.indie-rpgs.com/articles/ritual_discourse_in_RPGs.html
- (35) Lehrich, C., 2006, Personal correspondence.
- (36) Lehrskov, U., 2007, My Name is Jimbo the Orc. In J. Donnis, L. Thorup, & M. Gade, eds.

- Lifelike*. Copenhagen: Projektgruppen KP07. www.liveforum.dk/kp07book
- (37) Lieberoth, A. & Harviainen, J. T., 2008, Shaping Information Environments in Play and Ritual: Comparing Evidence from Gaming and Religions in a Cross-disciplinary Perspective. Forthcoming.
- (38) Lopenen, M. & Montola, M., 2004, A Semiotic View on Diegesis Construction. In M. Montola & J. Stenros, eds. *Beyond Role and Play: Tools, Toys and Theory for Harnessing the Imagination*, Helsinki: Ropecon. www.ropecon.fi/brap
- (39) Mackay, D., 2001, *The Fantasy Role-Playing Game. A New Performing Art*. London, McFarland.
- (40) Montola, M., 2003, Role-Playing as Interactive Construction of Subjective Diegeses. In M. Gade, L. Thorup & M. Sander, eds. *As Larp Grows Up. Theory and Methods in Larp*. Copenhagen: Projektgruppen KP03. www.laivforum.dk/kp03_book
- (41) Montola, M., 2005, Designing Goals for Online Role-Players. In S. de Castell & J. Jenson, eds. *Changing Views: Worlds in Play. Proceedings DVD of DiGRA conference, June 16.-20*. Vancouver, Simon Fraser University. www.digra.org/dl/db/06276.39565.pdf
- (42) Morton, B., 2006, *So What Makes It a Role Playing Game?* sapphire.indstate.edu/~bmorton3/what_countsasa_rpg.htm
- (43) Mäkelä, E., Koistinen, S., Siukola, M. & Turunen, S., 2005. The Process Model of Role-Playing, updated electronic edition. temppele.org/rpg/process_model/
- (44) Nephew, M. A. B., 2003, *Playing with Power. The Authorial Consequences of Roleplaying Games*. Doctoral dissertation. Milwaukee: University of Wisconsin.
- (45) Palmer, R. E., 1969, *Hermeneutics. Interpretation Theory in Schleiermacher, Dilthey, Heidegger and Gadamer*. Evanston: Northwestern University Press.
- (46) Phillips, D. Z., 2001, *Religion and the Hermeneutics of Contemplation*. New York: Cambridge University Press.
- (47) Pohjola, M., 1999, The Manifesto of the Turku School. In M. Gade, L. Thorup & M. Sander, eds. *As Larp Grows Up. Theory and Methods in Larp*. Copenhagen: Projektgruppen KP03. www.laivforum.dk/kp03_book
- (48) Pohjola, M., 2004, Autonomous Identities. Immersion as a Tool for Exploring, Empowering and Emancipating Identities. In M. Montola & J. Stenros, eds. *Beyond Role and Play: Tools, Toys and Theory for Harnessing the Imagination*, Helsinki: Ropecon. www.ropecon.fi/brap
- (49) Ricoeur, P., 1969, *Le conflit des interprétations. Essais d'herméneutique*. Paris: Seuil.
- (50) Ricoeur, P., 1975, *La métaphore vive*. Paris: Seuil.
- (51) Ricoeur, P., 1981, *Hermeneutics and the Human Sciences. Essays on Language, Action and Interpretation. Edited, translated and introduced by John B. Thompson*. London: Cambridge University Press.
- (52) Ricoeur, P., 1988, *Time and Narrative. Volume 3. Translated by Kathleen McLaughlin and David Pellauer*. Chicago: University of Chicago Press.
- (53) Salen, K. & Zimmerman, E., 2004, *Rules of Play. Game Design Fundamentals*. Massachusetts: MIT Press.
- (54) Sonesson, G., 2000, Action Becomes Art. "Performance" in the Context of Theatre, Play, Ritual – and Life. In M. van Mechelen & Sonesson, G., eds. *VISIO 5, 2, Automne 2000: Les arts de l'action/Action Art*.
- (55) Tan, P., 2001, *Tensions in Live-Action Roleplaying Game Design*. Master's Thesis for the MIT. Available in web.mit.edu/philip/www/chapters/thesis.pdf
- (56) Vuorela, V., 2003-, *Notebook*. www.burrgames.com/notes/
- (57) Yee, N., 2006, The Demographics, Motivations and Derived Experiences of Users of Massively-Multiuser Online Graphical Environments. In *PRESENCE: Teleoperators and Virtual Environments*, 15, 309-329. www.nickyee.com/daedalus/archives/001539.php

J. Tuomas Harviainen (b. 1972) is a master of theology from the University of Helsinki, with over 20 years' worth of tabletop role-playing and a decade of larp experience. Since 2004, he has been running a volunteer research program that does basic field testing on role-playing methods and theories. His earlier work on role-playing has appeared in the Nordic larp studies yearbooks, academic journals and role-playing magazines. Harviainen is currently writing his doctoral dissertation at the University of Tampere, on the subject of information behavior in live-action role-playing environments. He works as an academic librarian-in-chief in Turku, Finland. (jushar@utu.fi)