

Ragnhild Tronstad

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Defining a Tubmud Ludology***

By Ragnhild Tronstad

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Abstract

The adventure oriented Multi-User Dungeon Tubmud is in this article examined in the light of various theories on play and games, in order to define a methodology suitable to capture the specific game-like aspects of the MUD. By subjecting Tubmud to two models that were originally developed to analyse elements of traditional games, a complex of overlapping games is disclosed in the MUD, suggesting that the MUD is too diverse a phenomenon to be conceptualised as one kind of game. Instead it could be approached as a game environment comprising several different kinds of games. For the sake of analytical clarity, we may choose to examine each of these separately. Nevertheless, in actual play more than one of them will in fact often occur to be performed simultaneously.

What Is Ludology?

In the editorial of the first issue of Game Studies, game scholar Espen Aarseth argues for the establishment of computer game studies as a separate academic discipline. (Aarseth 2001b). He warns against attempts to colonisation from already established disciplines, especially those dealing with supposedly related media such as film and literature. The need for computer game studies to maintain its distance from various media studies is particularly important now in the initial stage, to avoid what media scholar Liv Hausken calls “medium blindness” when searching and defining an appropriate terminology and methodology for this new field of study. Of medium blindness, Hausken tentatively divides between two types: “total medium blindness” and “nonchalant medium blindness”. “Total medium blindness” is characteristic of theories and perspectives that are believed to be media independent when there is in fact a particular medium presupposed that the perspective in question relies on. “Nonchalant medium blindness” appears when theoretical premises that apply to one medium are uncritically borrowed and applied to a different medium. (Hausken 2004).

Approaching computer games as media is complicated due to several factors. First of all, because scholars tend to disagree on how a medium should be defined. For my purposes here a relatively broad definition is useful, according to which a medium is defined as that through or from which some sort of meaning is expressed or derived. Different media will have different restrictions and possibilities in terms of the form and content of that which is expressed. For instance, a media specific characteristic of theatre is the physical presence of the actors on stage. Using the computer as a medium, physical presence will necessarily have to be expressed differently.

Media function as channels for communication or interaction between parties. As I understand and use these terms, "communication" always involves meaning while "interaction" covers a broader field of activities that do not necessarily have to involve the expression or exchange of meaning. "Meaning" is here understood in its most minimal sense, as a process of signification involving the use of elements (signs) the major function of which is to refer to something other than themselves. For something to function as a medium there must be meaning attached to the interaction that takes place with the help of it. The kind of interaction that is made possible through what I define as media is therefore to a certain extent always communicative.

According to this understanding, games are not necessarily media, although they may function that way. Play isn't necessarily (or merely) communication either, even if it often involves communication. Throwing a ball against a wall, for instance, is not communicating with the wall, and the ball is not a medium. If there are two persons playing with the ball, on the other hand, they may have to communicate in order to play, but throwing the ball back and forth is not in itself considered a communicative act. Although it can be: If there is some sort of meaning attached to the game, intended or perceived, the ball may function as a medium. In this case play involves a process of signification, understood as the expression, exchange, and/or perception of meaning. However, what is signified – or what the game means – doesn't have to be intended or agreed upon by both participants. It is sufficient that one of the participants puts meaning into, or is able to identify meaning emerging from, the interaction. Expressing meaning in, or identifying meaning from, such an interaction implies that there are at least two participants who act or are perceived as acting autonomously. Play, as well as certain forms of magic, will often involve inanimate objects that are perceived as autonomous agents, or, especially in the case of magic, as media through which autonomous agents express themselves. Although there may, in reality, be only one person acting, meaningful communication between this actor and the object she experiences to interact with may emerge. The act of one person throwing ball against a wall may therefore, in principle, involve communication, where the wall or the ball act as imaginative autonomous participants. The importance of this

principle appears evident when applied to the player's relation to the text while playing MUDs. A MUD player engaged in solitary questing may experience both to interact and to communicate with the text, regardless of there being no autonomous participant present to interact or communicate with. In the context of play and make-believe, it is the player's experience of a situation that is constitutive of what the situation entails.

Another complicating factor when approaching computer games as media is that not all games that can be played on the computer are dependent on the computer as a medium to be played. I'm thinking here of games that were originally based on a different technology but which now can be played in simulated computer versions, such as *Chess* or *Solitaire*. In developing a conceptual framework to distinguish these games as games, consulting theories developed to explain features of the computer as a medium does not necessarily appear as a very relevant place to start. Both computers and games may function as media through which meaning is expressed or derived. Additionally the computer may function as a medium mediating between a player and a game. However, this possible function of games and computers is in my opinion not sufficient to define neither the computer nor the computer game played (in this case computer mediated *Chess* or *Solitaire*) as a medium, if no meaning is expressed or derived from the game itself.

It could of course be argued that such games are not really computer games, and that they should therefore not be included among what we define as computer games. Computer game designer Chris Crawford would seem to support such a view when he warns in *The Art of Computer Game Design* against "transplanting" already existing games into the computer, arguing that the choice of game technology is not arbitrary when creating a good game. All technologies will have a certain potential as well as restrictions that make them more or less suitable to their particular utilisation. Considering the various advantages and limitations of the computer as a game technology listed by Crawford, it appears quite obvious that there are certain types of games that the computer is better suited for than others. (Crawford 1982, chapter 4).

Game scholar and game designer Gonzalo Frasca proposed 'ludology' as a name for the new discipline that "studies games and playing in general, leaving video games just a particular branch of study." (Frasca 2001b). According to this definition, the ludological approach to computer games puts the kinship between computer games and other games to the fore, arguing that to establish game studies as an independent academic discipline the first task required is to define a general conceptual framework distinguishing games as games. To identify possible common denominators among what we define as games appears to be a necessary task for ludologists at this point: to establish and define the field of research, naturally, but also to defend the purpose of a new academic discipline against potential "colonisers" from other academic fields. In developing a theoretical

framework to outline the various features that characterise games as such, we must however be careful not to ignore the enormous variations between the different kinds of games that exist.

Ludwig Wittgenstein's discussion of the 'game' concept in *Philosophical Investigations* illustrates how difficult it is to reach a clear cut definition of games, distinguishing games from other phenomena. (Wittgenstein 1997 [1953], § 66-71). According to Wittgenstein, all uses of the concept 'game' will have specific games in mind, highlighting features characteristic of those games, while disregarding other features characteristic of different games. In Wittgenstein's view we know and distinguish games through a series of family resemblances. Although no feature is common to all games, such family resemblances make it possible for us to distinguish certain objects or practices as "games". Still, phenomena that we include in the family "games" may show close kinship also to other families. Live Action Role Play, for instance, is an example of a phenomenon that can be regarded both as belonging to the "theatre" family, as improvisational theatre, as well as the family of "games", as a role-playing game.

In this article my intention is to examine the various parts that make up *Tubmud*, and ultimately to decide in what way *Tubmud* may be described as a game. For these purposes, a ludological method for analysis may be called for. A general ludological method to approach games as games is, to my knowledge, yet to be developed. At the present stage, despite much discussion in the field no common agreement as to what constitutes a game has yet been created. A variety of play- and game definitions do exist, however. A selection of these will be presented in the next section of this article, in order to see how the two concepts have traditionally been defined, and especially how the interrelation between them is defined. I have collected and applied these definitions both from what has previously been written about games in general, as well as from what has more recently been written addressing computer games in particular. After this general introduction to relevant theoretical approaches to play and games I will present two models developed to analyse traditional games: E. M. Avedon's "The Structural Elements of Games", and Paul Gump, Fritz Redl, and Brian Sutton-Smith's "The Dimension of Games", both of which appeared in the 1971 anthology *The Study of Games*. Although quite similar, the latter is more detailed than the former, and I present them both in order to "map" the various game-like features of *Tubmud* in greater detail. A weakness with the two models is that they are – understandably but unfortunately – not "objective" models, mapping all possible features of games: Both quite strongly reflect an underlying purpose, namely to provide a method how to decide whether or not a game would be suitable for specific groups of people. Originally addressing an audience of social scientists, psychologists, and therapists, the two models represented highlight features that are relevant to these groups of professionals, while ignoring features that are not. From a transdisciplinary point of view, though, this "weakness" has

positive effects as well. As a scholar most often preoccupied with questions of aesthetics, these two models forces me to consider parts of *Tubmud* that may be invisible from my usual perspective.

Considering the various “elements” and “dimensions” presented in the two models in relation to *Tubmud*, I’ll apply external theories – primarily from other researchers involved with game studies – when this is relevant. The article, therefore, has several aims: It aspires to “map” *Tubmud* as a phenomenon, listing the several parts *Tubmud* consists of and suggesting how these could be conceptualised. It is also a methodological discussion of how to approach the several parts theoretically, presenting relevant perspectives from other scholars in the field. Last but not least it should serve to clarify my position as a scholar addressing *Tubmud*: that is, sorting out and highlighting the features of *Tubmud* that appear most relevant and interesting to address from my theoretical perspective, without giving the incorrect impression that these are the only features there are in *Tubmud*.

Definitions of Play and Games

Neither Johan Huizinga nor Roger Caillois operate with a clear distinction between play and games in their respective books; the two game studies classics *Homo Ludens* (1955 [1938]) and *Man, Play, and Games* (1979 [1958]). Huizinga deliberately aims for a broad definition that is capable of embracing every phenomenon that is covered by the English word “play”. Thus in Huizinga’s words, play is:

a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is “different” from “ordinary life”. Thus defined, the concept seem[s] capable of embracing everything we call “play” in animals, children, and grown-ups: games of strength and skill, inventing games, guessing games, games of chance, exhibitions and performances of all kinds. (Huizinga 1955 [1938], 28)

Caillois thinks Huizinga’s concept is at the same time too broad and too narrow.² In particular, he criticises Huizinga for not including games of chance in his book, focusing instead solely on agonistic games.³ Nevertheless, Caillois’ own definition does not appear very different from Huizinga’s. To Caillois, play is an activity that is essentially:

1. *Free*: in which playing is not obligatory; if it were, it would at once lose its attractive and joyous quality as diversion;

2. *Separate*: circumscribed within limits of space and time, defined and fixed in advance;
3. *Uncertain*: the course of which cannot be determined, nor the result attained beforehand, and some latitude for innovations being left to the player's initiative;
4. *Unproductive*: creating neither goods, nor wealth, nor new elements of any kind; and, except for the exchange of property among the players, ending in a situation identical to that prevailing at the beginning of the game;
5. *Governed by rules*: under conventions that suspend ordinary laws, and for the moment establish new legislation, which alone counts;
6. *Make-believe*: accompanied by a special awareness of a second reality or of a free unreality, as against real life. (Caillois 1979 [1958], 9-10)

Caillois makes a classification that aims to embrace all kinds of games, dividing them into the four categories *agôn* (competition), *alea* (chance), *mimicry* (simulation), and *ilinx* (vertigo). Within each category the games are measured on a continuum from *paidia* to *ludus*, according to how orderly they are, his (general) example of ultimate *paidia* being "tumult", while "crossword puzzles" holds the position of ultimate *ludus*. (Caillois 1979 [1958], 36). It is important to notice that the categories are distinguished through essential differences. The exact factors or qualities that place a game closer to the *ludus* pole in one category, therefore, do not necessarily correspond with the factors deciding the place on the continuum of a game of a different category. *Ludus* in Caillois' model is simply more "orderly" than *paidia*. Generalising further and comparing the distinctive pair *paidia-ludus* to the distinctive pair play-game may be tempting, but is imprecise. The play-game distinction is far better provided for by other thinkers in the field, whose theories I will present in the following.

In *The Oxford History of Board Games* (1999), David Parlett makes the distinction between formal and informal games, where the latter is "merely undirected play, or 'playing around'". Formal games have "a twofold structure based on ends and means", where 'means' refer to the agreed upon set of equipment used in the game, as well as to specific procedural rules that explain how to manipulate this equipment in order to produce a winning situation. Winning then defines the end of the game, "as termination and as object." (Parlett 1999, 3). Parlett's definition of formal games may function as a definition of games in general, or of games as opposed to simply "playing around". His definition of informal games, on the other hand, is too vague to be useful as a general definition of play, especially as it suggests that there are no rules or regularities involved.

An alternative to Parlett's definition is Frasca's distinction between *ludus*- and *paidia* rules.⁴ Frasca reserves the term *ludus* for games that produce winners and losers.

Ludus rules are therefore rules that define a winning situation. Paidia rules are rules that define or restrict the process of playing: how the equipment may be manipulated, for instance. Both play and games will contain paidia rules, but only games will have the additional ludus rules. (Frasca 2001a, 7-11). In play, paidia rules and goals are often set by the player(s), while in games both ludus- and paidia rules will usually be defined beforehand. In computer simulation games like *Sim City* – a paidiaic, or play-based, game that doesn't contain the ludus rules defining a winning situation – the paidia rules are defined beforehand. However, the player is allowed to set her own goals. If her goals imply a situation she may either win or lose, though, ludus rules are added and *Sim City* then turns into a game.

In the "Introduction" to *The Study of Games*, Avedon and Sutton-Smith offer the following definition of the relation between play and games, in which puzzles are included as examples of "solitary games": s

[We] define play as an *exercise of voluntary control systems*. But what of games? [...] From a cultural point of view it is usual to emphasize that play is unique and individual, but ephemeral; whereas a game is sufficiently systematic that it may be repeated by others in other places. [...] Games are repeatable because of their systematic pattern and their predictable outcomes. Play on the other hand is less systematic, and is open-ended with respect to outcomes. In a game, the participant's voluntary control over procedures has been subordinated in anticipation of, but without guarantee for, a given goal.

Again, games imply some opposition or antithesis between players. Even in solitary games (puzzles) it seems that this same sense of opposition is present. That is, the player contends against impersonal obstacles or against fortune, or he mentally pits one aspect of himself against another. [...] Even in the elementary game we have a repeatable pattern, opposition, and outcome. At its most elementary level then we can define a game as *an exercise of voluntary control systems in which there is an opposition between forces, confined by a procedure and rules in order to produce a disequilibrium outcome*. (Avedon and Sutton-Smith 1971, 6-7)

Computer game designer Greg Costikyan however argues that puzzles are not games, because they are not "interactive". (Costikyan 1994). Costikyan offers the following definition of a game: "A game is a form of art in which participants, termed players, make decisions in order to manage resources through game tokens in the pursuit of a goal." In Costikyan's view, "games are interactive: The game state changes with the players' actions. If it didn't, it wouldn't be a game: It would be a puzzle." He admits, though, that most computer games make use of puzzles, so it is possible that a game may contain puzzles and still be a game.⁵ Costikyan also distinguishes games from toys, arguing that in contrast to games, toys have no goals. The aforementioned computer simulation game *Sim City* should in Costikyan's view therefore be defined as a toy, not as a game.

In “Play, the Game, and the Generalized Other” (1962 [1934]), the social behaviourist George H. Mead writes about the relation between play and games from the perspective of a child’s development of self. According to Mead, game playing requires a more well-developed sense of self than does simple play, for with games a more elaborate set of responses is required. Both phenomena require that the child be able to assume roles. However, while play requires merely one role to be assumed, or that different roles be assumed successively, to play a game, the child must take on more than one role simultaneously. In fact, games require that the child be able to assume all roles and positions available in the game to be able to predict what is to come and act accordingly. Every player of a game, thus, needs to account for all positions in the game (although not all positions all of the time.) In Mead’s theory, the development of a self requires that the child be capable of assuming the position of a “generalised other”, from the perspective of which he becomes aware of himself as an object. The connection between the development of a self and the playing of games, according to Mead, is that participation in a game, that is, the simultaneous assumption of different roles, requires the same kind of positioning. Assuming the position of a generalised other does not imply that other humans are necessarily involved in the game, however:

It is possible for inanimate objects, no less than for other human organisms, to form parts of the generalized and organized—the completely socialized—other for any given human individual, in so far as he responds to such objects socially or in a social fashion (by means of the mechanism of thought, the internalized conversation of gestures.) Any thing—any object or set of objects, whether animate or inanimate, human or animal, or merely physical—toward which he acts, or to which he responds, socially, is an element in what for him is the generaliszed other; by taking the attitudes of which toward himself he becomes conscious of himself as an object or individual, and thus develops a self or personality. (Mead 1962 [1934], 154, note 7)

The various definitions of play and games presented in this section illustrate how the writer’s perspective is often decisive of what particular features are foregrounded when distinguishing play from games, as well as when describing play and games in general. When in the following I use models developed by social scientists to map *Tubmud* as a game, I will take into account their apparent lack of aesthetical concern, and compensate by adding theories developed in other fields when I think these are called for.

Mapping the Mud: A Transdisciplinary Approach

In “The Structural Elements of Games”, E. M. Avedon asks:

Are there certain structural elements that are common to all games, regardless of the differences in games or the purposes for which games are used, or the culture in which they are used? Are there elements that are invariant under certain transformations? (Avedon 1971, 420)

Combining various game theories from the fields of mathematics, psychology, psychiatry, and sociology, Avedon identifies seven such elements, and adds three more that “personnel in the field of recreation have called attention to.” (Avedon 1971, 422). Thus, he is able to identify the following ten elements of which games are composed, adding that “possibly, additional elements will be identified at some future date.” (Avedon 1971, 422):⁶

1. *Purpose of the game*; aim or goal, intent, the *raison d'être*.
2. *Procedure for action*; specific operations, required courses of action, method of play.
3. *Rules governing action*; fixed principles that determine conduct and standards for behaviour. N.B. Some games have very few rules, others have such elaborate sets of rules as to require a non-participant to keep track of infringement of the rules or to enforce the rules.
4. *Number of required participants*; stated minimum or maximum number of persons needed for action to take place. N.B. Sometimes minimum and maximum are identical.
5. *Roles of participants*; indicated functions and status. N.B. Role and power function may differ for each participant or be the same.
6. *Results or pay-off*; values assigned to the outcome of the action.
7. *Abilities and skills required for action*; aspects of the three behavioral domains utilized in a given activity.
 - a) Cognitive domain includes—figural, symbolic, semantic, and behavioral informational content; and operational processes, such as cognition, memory, divergent and convergent production, and evaluation.
 - b) Sensory-motor domain includes—bodily movement, manipulative motor skills, co-ordination, sequences and patterns of movement, endurance factors, sight, hearing, etc.

- c) Affective domain includes—semiotic factors which stimulate emotions, *i.e.*, anger, joy, affection, disgust, hate, etc. Offers opportunities for object-ties, transference, identification.

8. *Interaction patterns:*

- a) Intra-individual—action taking place within the mind of a person or action involving the mind and a part of the body, but requiring no contact with another person or external object.
- b) Extra-individual—action directed by a person toward an object in the environment, requiring no contact with another person.
- c) Aggregate—action directed by a person toward an object in the environment while in the company of other persons who are also directing action toward objects in the environment. Action is not directed toward each other, no inter-action between participants is required or necessary.
- d) Inter-individual—action of a competitive nature directed by one person toward another.
- e) Unilateral—action of a competitive nature among three or more persons, one of whom is an antagonist or “it”. Interaction is in simultaneous competitive dyadic relationships.
- f) Multi-lateral—action of a competitive nature among three or more persons, no one person is an antagonist.
- g) Intra-group—action of a co-operative nature by two or more persons intent upon reaching a mutual goal. Action requires positive verbal and non-verbal interaction.
- h) Inter-group—action of a competitive nature between two or more intra-groups.

9. *Physical setting and environmental requirements:*

- a) Physical setting—man-made or natural facility in which action takes place.
- b) Environmental requirements—natural circumstances which are indispensable or obligatory.
- c) N.B. This element may not always be present.

10. *Required equipment*; man-made or natural artifacts employed in the course of action. N.B. This element may not always be present. (Avedon 1971, 422-425)

Evidently Avedon's model cannot be used to distinguish *Tubmud* in its entirety as one game, or even type of game. For that MUDs are too diverse, as the following analysis based on the model will show. Already this is an indication that MUDs are perhaps more correctly described as "playgrounds", or "game environments", rather than as "games". Relating each of Avedon's elements to *Tubmud* appears nevertheless to be a useful operation, not only as it serves to make visible the great diversity of games to be played within a MUD, but also as it may direct attention to specific game elements and phenomena worth a closer look that could otherwise, if we used a more general, overall perspective, easily be missed.

1. Purpose of the game. With purpose, Avedon is referring to what defines the end of the game from a point of view that is internal to the game, that is, its inherent goal. To the MUD as a whole, there is no such end. There are ends defined in the quests and games taking place within the MUD environment, naturally. But as the MUD as such is more open-ended – and in this sense approaches play, cf. Avedon's and Sutton-Smith's definition quoted in the previous section – the purpose of playing is often set by the players themselves, and vary from player to player according to the player's preferences. To some players the goal of playing is to reach level 20, where they can be admitted as wizards and start coding (i.e. creating) their own quests, areas, and objects to add to the MUD. Other players spend their time in the MUD first and foremost to socialise (or role play), while again others aim toward developing a powerful character, or toward exploring and mapping as much of the game environment as they possibly can. Richard Bartle's article "Hearts, Clubs, Diamonds and Spades: Players who suit MUDs" (1996) divides MUD players into four groups: socialisers, killers, achievers, and explorers respectively. His model does not cover the ones who are playing to become coders, but then again, their purpose of playing could be regarded as lying outside of game play, constituting a goal that is external to the game. Bartle argues that to create a successful MUD environment the creators must take into account the balance of player types: Too many killers spoils the fun for the achievers⁷; too many explorers makes a boring game for the socialisers, etc.

A second complicating factor when deciding the purpose of the game is that *Tubmud* consists of so many sub-games, with each defining its own particular aim, goal, intention or *raison d'être*. This element, thus, needs to be considered with a particular player in mind, as well as exclusively for each particular sub-game in the MUD.

2. Procedure for action; specific operations; required courses of action; method of play, will also vary with type of player, and with type of game played. Even if we

restrict ourselves to one particular quest, though, and perform the analysis from the perspective of one particular player, it's not very likely that we will be able to pinpoint one particular procedure or method for playing, as the tasks to be performed will be varied, and some of them will even require that we step out of the particular game for a period of time to prepare (i.e. developing the skills needed to perform a certain operation) by playing an entirely different game. Solving puzzles, as far as puzzle games are rightfully conceptualised as games, the game itself is a matter of identifying the right procedure for action in order to be allowed to proceed.

3. *Rules governing the action* exist on different levels: At a general level, there are the rules stated by the administration of the MUD, divided into player rules, peer rules and wiz rules. These are rules concerning behaviour toward other players, restrictions to giving away hints and solutions to puzzles and quests, and prohibition of bug abuse, to mention a few. Then there are rules inherent in the code, defining what actions are possible and what actions are not. These are what Frasca would call *paidia* rules. (Frasca 2001a, 7-11). The third type of rules may be named after Frasca's *ludus* rules, governing each particular sub-game where they define the procedures that lead to a situation where the player either wins or loses the game. Paradoxically, when examining certain sub-games of *Tubmud*, this is the group of rules that are most tricky to define within the framework of a formal ludology. If, on the one hand, the sub-game examined is based on the game *Mastermind*, the *ludus* rules are easily definable as the following: to place four coloured pins in a row, to guess the colour and position of the pins of one's opponent, and to answer one's opponent's guesses by telling him the number of pins he guessed correctly (that is, the number of pins with correct colour but wrong position, and the number of pins where both colour and position were correctly guessed). But if the sub-game in question is less abstract, defining the *ludus* rules using a formal ludological model turns far more complicated. Solving a quest, in fact, often requires that the player identify and abide by a certain code of behaviour – a moral, or code of honour – that is to be interpreted and derived from the fictional context framing the quest. These rules are therefore a special kind of *ludus* rule: Not only are they initially hidden to the player, they are also embedded in a representation that the player needs to interpret as a (potential) narrative to disclose.⁸

4. The next element concerns the *number of required participants*. This is also contingent upon the type of player and sub-game in question: socialising and role-playing require two players or more, while exploring can be done in solitude. If we restrict ourselves to questing when considering this element, though, a major part of *Tubmud*'s quests are designed to be solved by one player only. There are a couple of quests that can only be played by two players cooperating, and quite a few that require more players if the characters are below a certain level. This typically concerns tough monsters that must be killed in order for the character to be able to

proceed: Low-level characters will need to cooperate, or receive help from a high-level character to get past such monsters.⁹

5. Roles of participants. This category is particularly relevant for the examination of character interaction between MUD players in general, but also with regard to solitary questing. Addressing character representation and interaction, character roles could be seen in a continuum from “presenting oneself” through an avatar¹⁰ in a social MOO¹¹ to the conscious staging of a fictive character personality in a role-playing MUD.¹² Some MUD societies are divided into clans and guilds, offering a hierarchy for the character to climb through the development of specific traits, skills, and qualities. Roles are also determined by the different games that are played in the MUD. The code of behaviour imposed on a character while solving a quest, for instance, also affects its role.¹³

*6. Results or pay-off.s.*¹⁴ To look for results or pay-off outside the MUD world, as something that affects the real life of the player, is beyond the scope of this ludology. Within the boundaries of the fictive world, though, the question of results and pay-off is a highly interesting issue. Contrary to most traditional games, result and pay-off from one *Tubmud* quest often come to play a significant part in the next one. Rewards won when solving a quest may add to the identity of the character through its symbolic value; other rewards such as a mighty magic sword may facilitate the future life of the character by making him or her a better fighter. Completing a quest also adds an amount of quest- and experience points to the character, which are needed to raise the character in level and also to raise its stats.¹⁵ Some quest objects may function as rewards even though they are not given to the character after the quest is solved, but during the questing process.

7. Abilities and skills required for action.. Avedon divides this element into three: *the cognitive domain*, *the sensory-motor domain*, and *the affective domain*. Obviously the player’s cognitive skills play a significant part when solving puzzle quests. Through the close examination and exploration of the quest space, textual interpretation is required in order to find the right procedure for action. Additionally, there are puzzles that require logical thinking from the player.

The sensory-motor domain must be divided in two: the sensory-motor skills of the player (e.g in typing, reading, quickly reacting to the information presented on the screen), and the sensory-motor skills of the character. The character is programmed with improvable skills for climbing, fighting, magic, etc. If the character hasn’t good enough climbing skills, certain areas of *Tubmud* will be closed to the player no matter how well developed his or her own sensory-motor abilities become.

The affective domain includes, as Avedon describes it, “semiotic factors which stimulate emotions, *i.e.*, anger, joy, affection, disgust, hate, etc. Offers opportunities for object-ties, transference, identification.” (Avedon 1971, 424). MUDs engage the affective domain to a surprising degree. Using only written words, instead of video

or other more visual representation, MUDs are what Marshall McLuhan calls cold media – media that transmit information with “low definition” – where the receiver has to fill in the massive gaps of information details that are missing in the transmitted message. (McLuhan 1997 [1964], 22). Popular assumption has it that the “warmer” the medium, the stronger the potential emotional impact of the message on the receiver. However, it is not the nature of the medium itself that effects strong emotional reactions, but the particular utilisation of the medium in question that may or may not be successful. Feelings evoked in the MUD – e.g. of pity, shame, fear, or affection – are experienced as being just as strong, and often even stronger, than similar emotions triggered by events in the player’s ordinary life world. Nevertheless, people who are not themselves familiar with MUD communication often find it hard to believe that such complex emotional responses may be evoked by words alone.

While communicating with other players/characters in the MUD, written words are exchanged in real time. Lacking intonation, facial expression, and the immediate gesturing we use to modify or amplify our words when communicating within a shared physical space, MUD communication leaves quite a lot out for the receiver to fill in. So much, in fact, that it is often more correct to ascribe the interpolated content to the player’s imaginative rather than interpretative faculty. Allucquère Rosanne (*aka* Sandy) Stone explains how the information added by the client during phone sex is guided by the client’s desire, where desire is evoked as a response to that which is missing. The principle of (wilfully or accidentally, but inevitably) “taking advantage of lack” applies to the participants of a MUD communication session as well:

In phone sex, once the signifiers begin to “float” loose from their moorings in a particularized physical experience, the most powerful attractor becomes the client’s idealized fantasy. In this circumstance narrow bandwidth becomes a powerful asset, because extremely complex fantasies can be generated from a small set of cues. [...] In a Lacanian interpretation of these interactions, client and provider mobilize erotic tension by taking advantage of lack—filling in missing information with idealized information. In this circumstance desire, theorized as a response to perceived lack, arises as a product of the tension between embodied reality and the emptiness of the token, in the forces that maintain the pre-existing codes by which the token is constituted. (Stone 1995, 94-95)

The fact that MUD communication proceeds according to this principle implies that the other player with whom the MUD player communicates can never be identical with the way in which he or she appears in the real world: “The other player” is a construct of the MUD player’s imagination, based on the MUD player’s interpretation of the information that is available to her, as well as her own input of “idealised” content where the information passed on to her is inadequate.

8. Examining the *interaction patterns*, we again have to distinguish between the different games that can be played inside of the MUD world, though the first, that is, *intra-individual action*, is here ruled out as there is always at least one computer involved in addition to the player. The action is therefore *extra-individual*, as Avedon describes it, “directed by one person toward an object in the environment, requiring no contact with another person”, as far as the game is played in solitary interaction with the text alone and not including any communication with other players/characters. Typically, though, in *Tubmud* quests, is a combination of extra-individual and *aggregate* action, “directed by a person toward an object in the environment while in the company of other persons who are also directing action towards objects in the environment. Action is not directed toward each other, no inter-action between participants is required or necessary.” (Avedon 1971, 424). Exceptions to this general rule are the few quests that require two or more players to be solved.

In *Tubmud*, the interaction between players is rarely *inter-individual*, that is, “a competition between two persons”. However, such interaction occurs, for instance, in the games “Waiting”, and “The Schnitzel Chase”. Inter-individual competition may also be initiated by the players themselves, e.g. when competing to be the first one to reach the next level, or to occupy the higher position on one of the seven tablets listing the 10 highest ranked players in level points, combat points, quest points, explore points, alignment on the good side (from saintly), alignment on the bad side (to demonic), and age, respectively.

Unilateral action, where two or more persons compete against one antagonist, is not very typical in *Tubmud*, and neither is *multi-lateral* action, where three or more people compete against each other. If we include non-player characters¹⁶ among the possible antagonists, however, the picture is different: Then inter-individual, unilateral, and multi-lateral actions become the norm rather than the exception.

Intra-group action, where a group cooperates to reach a mutual goal, is, on the other hand, quite frequent. Several quests are played this way, especially those that involve heavy combat. *Inter-group* action, where two or more intra-groups compete against each other, is rare, although the clan system was perhaps intended to instigate such activity. Again, if we include non-player characters as antagonists, the result is different. In such cases, inter-group action is just as frequent as intra-group action; in fact, they would appear more or less inclusive of each other. Examples here are the quests entitled “Return To Another World” and “Slay the Evil Necromancer Kobayashi”.

9. *Physical setting and environmental requirements.* Examining the actual physical setting of the player is not very relevant to this project, apart from stating the obvious: there is a huge discrepancy between the actual physical space that the player inhabits and the virtual space that he imaginatively inhabits when he enters

the MUD. (Logging in to *Tubmud*, the player is greeted with the following message: *Ahh.. It's good to return once again from the horrifying dreamworld of reality. You flex the toes of your Tubmud body and finally feel at home.*) More interesting, thus, is the space represented by the MUD texts: the textual environmental settings that frame the games that are played there. The representation of space in MUDs will be further addressed below, when examining *Tubmud* according to the dimensions of Gump et. al.'s model.

10. Required equipment. The player needs a computer with an Internet connection and a MUD client installed to enter the game. The rest of the details will be provided by the game itself. This element is more relevant to examine from the perspective of the character inhabiting a fictional world, in which the search for required equipment is often an integral part of the game played. A description of required character equipment will be given later in this section.

Paul Gump, Fritz Redl, and Brian Sutton-Smith's "The Dimensions of Games" is another approach to the structure of game elements, listing 30 dimensions and distinguishing different possibilities within them. Including more variables than Avedon's, this model is a more precise analytical tool, useful to spot more aspects of the MUD that may deserve attention. Because of it being so detailed while at the same time aspiring to embrace all kinds of games, though, some of the categories will necessarily appear less relevant than others. For overview purposes, I'll again present the dimensions together first and discuss them in more detail later while relating each of them to *Tubmud*.¹⁷

- I. Body Contact.
 - A. Directness vs. Via Props.
 - B. Competitive vs. Non-Competitive
- II. Bodily Activity.
 - A. Body Mobility and Locomotion.
 - 1. Static vs. Mobile.
 - 2. Rigid vs. Fluid.
 - B. Manipulative Opportunities.
 - C. Vocal Expression.
- III. Skill Requirements.
 - A. Thinking.
 - B. Creative Imagination.
 - C. Manipulating as in Arts & Crafts.

- D. Manipulation as in Athletics and Body Skills.
- E. Language.
- F. "Reaction Time".
- IV. Chance Determination of Success.
- V. Competition Factors.
 - A. Centrality of Winning and Losing.
 - B. Goal Directed vs. Opponent Directed.
 - C. Self Enhancement vs. Defeat of the "other".
 - D. Team vs. Individual Competition.
 - E. Interference with Participants by Participants.
- VI. Use of Space.
 - A. Amount available.
 - B. Freedom in Use of Space.
- VII. Time Considerations.
 - A. Amount of time before fun rewards start.
 - B. Presence or Absence of Natural Termination Points.
 - C. Presence or Absence of Well Closed Steps.
- VIII. Prop Usage.
 - A. Clubbing Props.
 - B. Power Projection and Extension Props.
- IX. Role Taking Factors.
 - A. Amount of Function Differentiation.
 - 1. Limelight.
 - 2. Control Positions.
 - 3. On-the-spot Positions.
 - B. Imagination Roles.
- X. Rule Complexity.
 - A. Increase demands on the comprehension of participants.

- B. Enrich game experience.
- C. Cause Unexpected advances and reversals.
- XI. Interdependence of Players.
- XII. Volume and Distributions of Participants.
 - 1. Active participation.
 - 2. In-game passive participations.
 - 3. In-game waiting.
 - 4. Out-of-game waiting.
 - a) *Amount* of Guaranteed Active Participation.
 - b) *Rapidity of Shift* from less Active Types of Participation to Active Participation.
 - c) Continuity of Active Participation.
- XIII. Leeway for Marginal Impulse Expression.
- XIV. Respite Possibilities.
 - A. Safety Zones or Positions.
 - B. Built in rest periods.
- XV. Suspense Emphasis.
- XVI. Switches Between Opposites.
 - A. Theme Switch.
 - B. Action Switch.
- XVII. Pleasure-Pain Content of Winning or Losing.
 - A. Loss of "Possessions".
 - B. Implications that one is inadequate skillwise.
 - C. Implication that Destiny is against one.
 - D. Loss of Dignity.
- XVIII. Spread of Winnership.
 - A. One winner—everybody else loses—elimination games.
 - B. One-winner and seconds and thirds.
 - C. Several winners.

- D. All win but the loser.
- XIX. Penetration of Game by Rewards and Penalties.
 - A. Game Play.
 - B. Game End.
- XX. Institutionalized "Cheating".
 - A. "Lying" and Bluffing.
 - B. Deliberate Misleading.
 - C. Stealing.
 - D. Sneaking.
- XXI. Nature of the Obstacles in Game.
 - A. Beyond the participant obstacles.
 - 1. Opponent produced and/or manipulated obstacles.
 - 2. Impersonal obstacles.
 - B. "Tied-to Person" Obstacles.
- XXII. Trust Dependence.
- XXIII. Permanence of Alliances.
- XXIV. Direct Mirroring of Life Themes.
 - A. Contemporary Events and Culture.
 - B. Institutionalized Fantasy.
- XXV. Personalization of Game Props.
- XXVI. Introduction of Ritual to Game.
- XXVII. Potential Sexualization Range of Games.
 - A. Incidental Body Pleasure.
 - B. Eliciting and Tying Sexual energies on Certain Given Sublimational Level.
 - C. Safety-Guaranteed Sexual Gratifications.
- XXVIII. Potential Humor-Producing Range of Games.
- XXIX. Outcome Clarity.
- XXX. Challenges.

I. Body contact. Already the first dimension of body contact confronts us with two of the more fundamental questions that need to be addressed in order to make this model functional for our purpose. Firstly, as we are always acting through textually defined avatars in MUDs, this dimension could be regarded irrelevant. However, entirely omitting the dimension of body contact would hardly prove to be a reasonable decision. Simulation of bodily contact through textual commands is, after all, one of the more significant communication devices at work in MUDs. A better solution is therefore to acknowledge the textually defined simulations of physicality/physical space as equivalent to ordinary physicality occurring in the ordinary physical space that is referred to in the model. And just as some dimensions could easily be considered irrelevant unless we regard the represented MUD world as an equivalent to the physical world, regarding non-player characters as equivalent to player characters (as allies or adversaries) is necessary in order to apply other dimensions.

The second problem is that MUDs – again – prove to be too diverse. Several forms of bodily contact occur during a MUD session. Some are direct, some are performed via props, some are competitive in one way or the other, and some are non-competitive. Distinguishing the MUD as a specific type of game through this dimension is impossible. Evidently, for these rather specific categories to be analytically useful, we must separate between different events in the MUD, looking at each of them individually. Complicating the situation further, though, we see that singular quests and scenarios will also appear to embed several different games if games are to be defined and distinguished according to the positions they occupy within this scheme.

This is not, however, exclusive to MUDs, but will probably apply (to a lesser or greater degree) to all games that present the player with a series of tasks requiring different approaches. Non-abstract computer games – in which playing takes place within a represented game world – often present the player with great diversity in the tasks to be performed during game play. An “eventology” to map such diversity in games is proposed in the article “Video games and configurative performances”:

As games consist of open series of events rather than of closed sequences of events like narratives, we might try to apply Aarseth’s heuristic functional typology (Aarseth 1997, 60-63) also to individual and semi-autonomous strings and clusters of events instead of the totality of them. Then we would have a very different eventology at our disposal, capable of taking into account the combinatory nature of events in the bottom-up world of computer games, or more generally the ways games divide themselves into parts and sequences. (Eskelinen and Tronstad 2003)

While Gump et. al.’s model is already too rigid to distinguish *Tubmud* as a type of game, it serves as a first step on the way to mapping the diversity of possible MUD

games and game events. If one's objective is to map the various types of game play available in MUDs on a strict formalistic level, the next step could be to subject these games and game events to a more detailed eventology of the kind that is outlined in the article quoted above.

II. Bodily activity. *Body mobility and locomotion* is required in order to explore the MUD space. However, there are periods of just standing around as well, chatting with other players, for instance, or waiting for things to happen. Restrictions on bodily mobility may be *rigid* (as when the character is trapped or paralysed), but mobility tends to approach *fluid* in the sense that the character is normally free to move around as it (or rather, the player) pleases. (Common restrictions to the characters' mobility are described further under dimension VI, "Use of space," below.)

III. Skill requirements. *Thinking* applies particularly to puzzle solving. *Creative imagination* is necessary in order to experience the MUD as something more than mere words on a screen, that is, to conceptualise it as an imaginary environment to be inhabited. *Manipulation as in Arts & Crafts* is irrelevant from the perspective of the player, as every object will be represented, manipulated, and created through the medium of letters and words. From the perspective of the character, on the other hand, this dimension is relevant: playing an instrument or forging weapons are examples of skills available to learn and improve for the character. Similarly with the dimension known as *Manipulation as in athletics and body skills*: without having to be particularly athletic himself, the player will often have to train his character in body skills (e.g. climbing) to be able to perform certain actions. *Language* is of course a highly relevant category, which applies first and foremost to the player. (First and foremost, but not exclusively, as *language* is in fact a skill available to the character as well in *Tubmud*. He or she may learn to speak the foreign language known as Liztongue.) Language skills of the player are required in all MUDs but highlighted in role-playing MUDs which are based on the players' own description of their interactions. *Reaction time* can affect the outcome of a fight. Sometimes when the system gets overloaded extraordinary time lag between the player's giving a command and the computer's execution of it may overrule reaction time, though, causing the character's death regardless of the player's timely reaction. Reaction time can also be an issue in quests, if there are tasks that may be performed only within a limited period of time.

IV. Chance determination of success. Chance is seldom a significant factor in quest solving, where success is rather skill determined. When the distribution of tokens involves an element of randomness, however, chance becomes a variable. For example, in the MoMu¹⁸ scenario "Waiting", players compete against each other to successfully seat groups of guests arriving at a restaurant. The guests are of different races and genders, and they must be seated in a specific order, according to a quite complex set of rules. The race and gender of successive guests

accumulating in each waiter's line to be seated successively is distributed at random. Success in "Waiting", thus, is partly a matter of chance, and partly a matter of strategic thinking.

V. Competition factors. The question of *winning and losing* is central in questing, and to the achiever¹⁹ type of players. Among socialisers, this category may be considered irrelevant, and MUDs that are designed primarily for socialising purposes may lack this dimension entirely. Whether or not MUDs that lack this dimension are "games" at all depends on how we define the difference between play and games: according to Frasca's definition they are not games, while according to Caillois they may very well be.

Competition is *goal directed* in questing and in competitions of advancement between players. During fights, the element of competition is *opponent directed*. Here the goal can be both *selfenhancement* and *defeat of the "other"*, depending on the contextual setting for the fight. Most competition in *Tubmud* is *individual*; *team competition* between player teams is rare, but – as mentioned earlier – some quests involve team competition between a team of players versus a team of monsters. *Interference with participants by participants* – i.e. where a player creates obstacles to hinder another player's success – is a feature of role-playing MUDs, where there may be no obstacles other than those that are created on the spot by one's antagonist(s). In *Tubmud*, the obstacles to overcome in each game are already defined in the code. Other players may of course interfere, but as competition between players is not a factor that is particularly emphasised in the various games, interference with participants by participants is not encouraged, and rarely happens.²⁰ Again, if non-player characters are considered "participants", the result is different: then the category regarding participant interference applies to *Tubmud* as well.

VI. Use of space. MUDs are game spaces representing miniature worlds. Smaller game spaces, or playgrounds, are embedded within each MUD. These game spaces may be separate or overlapping. A quest may define one such game space, or be divided into several game spaces (sometimes overlapping), or define one major game space embedding several sub-game spaces.²¹ In "Allegories of Space" Aarseth proposes the terms *open space* and *the labyrinth* to designate two different ways of simulating space in computer games. In open space simulations, the player can move freely into any direction, while in the labyrinth there are paths defined that the player will have to keep to. Labyrinthine game spaces may represent open spaces such as landscapes by using realistic obstructions (hills and rivers, for instance) to "naturally" restrict the game space available. (Aarseth 2001a).

Aarseth opposes the assumption that computer games will necessarily benefit from the development of ever more realistically simulated 3D spaces, arguing that

to certain types of games it is in fact the non-spatiality of space simulation that makes gameplay possible:

[S]patial representation in computer games [is] a reductive operation leading to a representation of space that is not in itself spatial, but symbolic and rule-based. The nature of space is not revealed in this operation, and the resulting product, while fabricating a spatial representation, in fact uses the reductions as a means to achieve the object of gameplay, since the difference between the spatial representation and real space is what makes gameplay by automatic rules possible. In real space, there would be no automatic rules, only social rules and physical laws. (Aarseth 2001a, 163)

Representing miniature worlds, MUDs are generally constructed as open spaces, while also including areas that are structured like a labyrinth. The player may, to a great extent, freely move his or her character around in *Tubmud*, exploring and using the text space available. There are, however, spatial, temporal, or personal (tied to the character) restrictions as to which rooms the character may enter. The character cannot move instantly to any room in the MUD, but must follow the available exits leading out of the room he or she is currently positioned in. Nevertheless, teleportation between rooms that are not explicitly linked together this way is possible. The destination room cannot freely be chosen on the spot, though, but needs to be set beforehand by the player visiting the room the regular way and “saving” it in the memory of the teleportation device that will be used. Temporary restrictions exist too: For instance, some of the village shops will be closed during the night. An example of personal restriction is when a room can be visited only after the character solves a specific task.

Aarseth’s cybertextual variables of *access* and *linking* should be applied to this dimension. Aarseth makes a distinction between random and controlled access to texts, described in the following manner: “If all scriptons of the text are readily available to the user at all times, then the text is random access (typically the codex); if not, then access is controlled”. (Aarseth 1997, 63). Linking may be explicit, conditional or non-existing (no links). Conditional links are links “that can only be followed if certain conditions are met”. (Aarseth 1997, 64). Rooms that can be visited only after the character has solved specific tasks are examples of conditional linking in MUDs. Following Aarseth thus, we can say that the player/character of *Tubmud* has controlled access to the text rooms of the MUD (not all rooms are available all the time but dependent on the character’s position in the landscape), and some times access is further restricted through conditional linking between rooms.

VII. Time considerations.²² *Tubmud* is text based, which means that before any play can take place, the player must have succeeded in situating herself mentally within the game space through reading and textual interpretation. This takes time. Also

when solving puzzles, the *amount of time before fun rewards start* can be quite substantial, depending on how difficult the puzzles are. To define what “fun reward” may imply in games I use Mihaly Csikszentmihalyi’s concept of *flow*, which is described as an “optimal state of experience”. (Csikszentmihalyi, 1988a, 3). Flow is experienced when the activity performed appears rewarding in itself. Play is usually thought of as being intrinsically rewarding, in contrast to work which is done for the purpose of obtaining extrinsic rewards, e.g. money.²³ In flow, people forget time and place: they become totally absorbed in performing the task at hand. No reflection is needed as to how to perform it, either. It is in this state that concentration is optimal, according to Csikszentmihalyi. Reaching the condition of flow, though, also requires that the challenges perceived in a situation and one’s ability to handle them are perfectly balanced. If the challenges are too difficult to handle, we become anxious. If the challenges are too easy, on the other hand, boredom is the result. The ability to experience flow is partly dependent on the person, or the personality type, as certain people seem more talented than others in establishing this required balance. There are also types of activities that are more likely to effect flow experiences. As Csikszentmihalyi writes:

In everyday life, challenges and skills are rarely balanced. Either there are too many things to do, clamoring for attention, in which case we tend to be worried or anxious; or there seems to be nothing to do, in which case we end up feeling bored. This is why flow typically occurs in clearly structured activities in which the level of challenges and skills can be varied and controlled, such as ritual events, games, sports, or artistic performances. (Csikszentmihalyi 1988b, 30-31)

A continuous sense of flow is rare when playing *Tubmud*. This too is partly due to the diversity of the game: It is simply not possible to learn the rules once and for all, and set out playing. All through the game, there will be new things to learn, and new skills to develop. Pondering over impossible puzzles; spending one’s time collecting all sorts of healing items in order to be able to beat a particularly tough monster in combat; or practicing for hours to be able to climb a difficult wall; forging a special sword; or making light by magic, might be considered tedious rather than fun. Juul calls time spent in games performing dull but necessary tasks like these “dead time”. (Juul 2003). Obviously, these activities can’t be rewarding in themselves, as they’re performed for the sake of something else: that is, in order to reach a higher goal. The focus of the player will be on this future goal, rather than on the performance itself. To see the solution to the puzzle is fun, as is beating the monster, or reaching the top of the wall. Fun rewards in MUDs will, for the most part, be experienced as moments of flow, occurring when the player finally, after hours of preparation or pondering – or suddenly, by a lucky coincidence – masters a specific task. As Juul correctly points out, though; spending a lot of time in

frustration preparing for a task may enhance the feeling of joy when one finally masters it. (Juul 2003, note 10).

Juul divides time in computer games (game time) into *play time* and *event time*. Play time is the time playing takes, while event time is the representation of time passing in the game world projected. Not all games have a separate event time: for example, abstract games such as *Tetris*, which do not project a game world. Play time and event time can be concurrent (typical in action games), or event time can proceed faster than play time (as in simulation games where the passing of a year in the game world may take two minutes play time.) The player may be informed about events that happened previous to play time through cut scenes. While these go on, play time is necessarily paused, as there is no way the player can influence cut scene events: They are merely passed on to him. Sometimes information about events that happened in the past can also be gained during gameplay, through objects left in the game world that contain such information (e.g. the books in *Myst*). (Juul 2003).

Tubmud is set in a “long distant past”, and time proceeds much quicker there than in our world. This indicates that play time and event time are different in *Tubmud*. The quick progression of event time, though, is significant only to certain kinds of activities: Idling ten minutes to wait for the village shop to re-open after it closed for the night, for instance, is considerably less frustrating than having to wait ten hours. During questing or fighting, on the other hand, the player may easily get the experience of acting in real time: that is, that play time and event time are identical. While socialising with other players, the “long distant past” dimension tends to be suspended.

Some quests in *Tubmud* make use of an equivalent of cut scenes, for example when streams of information are presented while the character is in a state unable to leave or interfere until everything is said. A more typical feature of the genre, though, is to have information revealed little by little through exploration of the quest space.

Juul's distinction between play time and event time and his examples of how this relation differs according to game genre has interesting implications when applied to *Tubmud*. An analysis of game events here reveals several layers of event times going on at the same (play) time. Traditional distinctions between computer game genres, thus, are not always easily drawn in games like *Tubmud*, in which a single game event may include and mix features from various genres, such as the simulation game, the action game, the role-playing game, and the adventure game.

Aarseth operates with a threefold temporality in relation to computer games, consisting of *event time*, *negotiation time*, and *progression time*.

In the clockwork world of the game, events occur when the controlling program enacts them, and when the user acts on the same level. The event time

is the basic level of ergodic time. [It] is a result of the user's growing knowledge of the event space, as laid down by the designer of the game. This knowledge process takes place on a level outside the game's event time, which may be seen as a level of negotiation, where the possible event times are tested and varied, until a sufficiently satisfying sequence is reached, or not reached. If it is reached, a third level of time has been affected: that of the progression of the game from beginning to end. (Aarseth 1999, 37)

The amount of time before fun rewards start could be approached with the pair *aporia* and *epiphany* used by Aarseth. Aporias are obstacles that hinder the player's progression in the game, keeping her stuck in negotiation time. They can be puzzles, monsters, or physical obstacles that the player needs to find a way to pass or get round. What Aarseth calls epiphany is the moment when the player realises the correct way to proceed in order to overcome the obstacle. This is a typical moment of flow: When the player "knows" exactly what to do, and the game responds accordingly, confirming her knowledge and rewarding her with the sense of mastering her task.

Presence or absence of natural termination points. When the player has to wait for his character's hit points²⁴ to be restored before continuing fighting, the game he was engaged in is naturally paused. He may, of course, use this time to engage in another game, solving a puzzle, for instance, which does not consume hit points. He can also go for a drink to speed up his character's recovery.²⁵ If the pub is closed when the player/character arrives, and he decides to wait for it to open, this would represent another "natural termination point" in the game.

Presence or absence of well closed steps. Regarding *Tubmud* as a whole, when a player finishes a quest, or reaches a higher level, she has completed a part of the game. Some quests are also divided into smaller parts or sub-games that are "saved" after they are completed, for example the quests entitled "Be kind to an Old Lady" and "The Lands of Havoc". Such parts or sub-games represent "well closed steps" in the game.

VIII. Prop Usage. *Clubbing props.* These range from chopsticks, knives, and daggers, through brooms and ordinary swords, to magical swords and whips. Only characters that have reached a certain experience level can wield some of the very advanced weapons. Wielding a good weapon makes the character more powerful, facilitates gameplay, and may enhance the experience of flow. Wielding extremely powerful weapons can also add to the character's identity or status within the game world. A few weapons have special purposes, for instance, when a certain monster can only be killed by a particular weapon. This weapon may be extremely powerful when used on this particular monster, while being practically useless when wielded against other monsters. An example is "the indescribable monster slayer" which is

used to kill the “indescribable monster” in the Monty Python-inspired quest entitled “Revive some Glorious Knights of a Long Forgotten Age”.

Power projection and extension props. To the adventurer’s typical outfit belong armour (boots, mail, robe, shield, gauntlets, helmet) as well as monster spectacles,²⁶ rope, torch, shovel, and a bag to carry things in. Ordinary boots may be replaced with Freya’s boots (containing a little imp with teleportation- and healing powers); ordinary mail can be replaced with a bluemail, or a healing mail (both have healing powers, but the bluemail can also store a certain amount of spellpoints to be released when the player needs them); the character may wear a white robe or a brilliant mantle (emitting light); and instead of a helmet, perhaps a wizard’s hat (with the same powers as the imp, approximately) or a witch hat (which has varying functions according to the alignment of the character.)²⁷ In addition, the character may get herself a spell diploma (which implies mastering the available spells on it), a magic broom that can take her to certain locations, and perhaps a spell adder (containing an amount of additional spell points that the character can use.) In short, there is a wide variety of power projection and extension props to be used in *Tubmud*.

IX. Role taking factors. *Amount of function differentiation.* In “The gaming situation”, Eskelinen builds upon Aarseth’s distinction between static and dynamic roles of the player (Aarseth 1995), and describes player functions and functional differences between players in the following manner:

The static and dynamic functional relations among players refer to the functional capabilities of their representations (characters) in and during the game: they can either acquire new qualities and capabilities in the course of the game, or not. One should also make a distinction between functional similarity and dissimilarity of available roles in a game, as whenever there’s a team there is usually also a division of labour. (Eskelinen 2001)

In many MUDs, possibilities and restrictions concerning the development of character skills are tied to guilds and/or races.²⁸ Such organisation of character creation offers the opportunity to create characters that specialise in specific tasks such as healing, magic, or fighting. This is a way of encouraging role-play as well as cooperation between the players in the MUD. Before setting out on a mission, players of such MUDs may group together according to their characters’ specific skills and traits: skilled dwarven fighters grouping together with a couple of physically weak elven druids offering healing in exchange of protection, for instance. *Tubmud* characters are not defined according to race differences, and the guild system offers minimal differentiation only as to what skills the character may possess and develop. Consequently, functional differences of characters in *Tubmud* are primarily a question of character level, in addition to the player’s experience and personal style of playing.

Limelight position and *on-the-spot position*: Character names may be exposed through public announcement (a message occurring on all the players' screens), either because he, she, or it accomplished something great (e.g. saved the Golden Country) or because of bad behaviour (e.g. cheating Old Mastermind).

Control positions belong to the wizards of the game, who can expel players who cheat or misbehave according to the rules of the game.

Imagination roles. In order to be admitted permanent access with a personal character to a role-playing MUD, it is often required that the player describe in great detail characteristics of his or her character before it is formally created. She must be faithful to this description later in the game by allowing it to determine precisely how the character acts and reacts. As explained above, race and guild association function much in the same way, allowing and restricting the possible actions of the character. (A difference is that in the latter case, it is the computer that keeps track of available and unavailable actions of the character, making it futile to even try to transcend limitations in the character's "nature".) These two ways of organising character creation in a MUD emphasize the role-playing element of the game, focusing on the character as a fictive personality inhabiting a fictional space. The player is asked to identify with the character's personality type and take pleasure in the assumption of its role in the game. In this process, a conflict between representational and functional aspects of the character may arise, if the representational aspects appealing to the player's imaginative identification are not compatible with the player's personal or preferred style of playing. An example of this could be a player who wants the appearance of an elven druid but realises during game play that she is far too impatient and independent as a player type to enjoy a game in which she must rely on other players' help in order to earn combat points, or even to make it through the woods in one piece.

In "The Myth of the Ergodic Videogame. Some thoughts on the player-character relationships in videogames", James Newman argues that representational aspects of the character in computer games are less important than its functional capabilities in regard to the player's sense of character identification and immersion in the game:

[T]he character-selection process described by Kinder reveals a relationship with these characters that disregards representational traits in favour of the constitution of character as sets of capabilities, potentials and techniques offered to the player. The player utilises and embodies the character in the gameworld. While it may retain significance on the box, in adverts, even in cut scenes and introductions within the game, during On-Line²⁹ engagement, the appearance of the player's character is of little or no consequence. By this, I mean to suggest that the level of engagement, immersion or presence experienced by the player – the degree to which the player considers themselves

to “be” the character – is not contingent upon representation. On-Line, “character” is conceived as capacity – as a set of characteristics. (Newman 2002)

Tubmud is neither a role-playing MUD (in which role-play is required), nor does it offer different races for character definition.³⁰ The few guilds provided would need to be more distinctive, varied, and better integrated in the MUD to constitute a proper guild system of the kind that guides or determines role-play in other MUDs. Imagination roles in *Tubmud* are therefore to a lesser extent defined or determined by the player beforehand, but tend to develop over time, that is, they are determined by events happening in the process of game play.³¹

The wide variety of games to be found inside of *Tubmud* assign the player various roles, as well. Later in the article, sorted under XXX. Challenges, Gump et. al. present a list of possible player relations (“Purpose of Actor and Counter-Actor”) that I will include here, as it also concerns possible roles assigned to the player during competitive gaming:

The Race. Actor: *To overtake. Counter-actor: To stay ahead (both are attempts to reach a goal first).* As *Tubmud* games seldom involve competition between players, the pair actor/counter-actor will in general consist of a player (or players) occupying one position, while non-player characters occupy the other. The exception to this rule occurs within The Race. This is the only category in which we find games where players occupy both positions. One example is “The Schnitzel Chase”, which is organised as a race between two players, or two teams of players, hunting little coloured pigs which are scattered around in the MUD landscape, bringing as many as they can possibly catch to Big Bad Wolf the Pig Eater before the time runs out. Another example is the player-initiated game in which players compete to reach a higher rank first.

The Chase. Actor: *To try to catch, tackle, tag. Counter-actor: To outdistance, dodge, elude.* The aforementioned “Schnitzel Chase” is additionally a chase in which the players occupy the actor position while the pigs are counter-actors. To cross a labyrinth appearing in the quest entitled “The Lands of Havoc” is an example of a game event in which the player is assigned the position of counter-actor, being chased by fifteen orcs.

The Attack. Actor: *To overcome barrier, enter a guarded area, overpower a defense, to injure—psychologically or otherwise. (Attacks may be obvious and frontal or “undercover”.) Counter-actor: To defend an area, a person, to ward off assault by maneuver and force, to be on guard (meet force with force—or alert watchfulness.)* Game events of this category are quite typical to encounter in quests. In general the player is assigned the actor position in these encounters: overcoming barriers, entering guarded areas, overpowering defences – head on, or undercover. Non-player characters typically occupy the position of counter-actor. However, moving

around in the MUD the player always needs to be on guard when entering unknown areas, as well as areas in which aggressive monsters reign.

The Capture. *Actor: To take (to take a person, a symbol; includes swiping as well as open grabbing.) Counter-actor: To avoid being taken; to avoid loss of symbols or one's allies.* Game events of this kind are also commonly included in quests. As in the previous category, players usually occupy the actor position here. Non-player character thieves roaming the MUD, apparently at random, ensure that most *Tubmud* players will be familiar with the experience of occupying the counter-actor position as well.

The Harassment. *Actor: To tease, taunt, lure to mistake or to unsuccessful attack. Counter-actor: To see through the trick, to move suddenly and punish attackers, to "bide one's time" until one can really be successful.* A typical harassment situation is when the player tries to attack a monster without possessing a necessary item – either a special weapon (such as the “indescribable monster slayer”) or an item for protection (a special amulet, for instance). The item will be hidden, and the player will often have received hints that the item is necessary. The player thus acts as counter-actor. These situations, which

often end in the character’s death, are seldom due to the skills of the actor (“to tease, taunt, lure to mistake or to unsuccessful attack”) but rather to the player’s own inability to “bide her time until she can really be successful.” Other harassment situations exist too, for instance, when the character is trapped as a result of trying to help an apparently innocent creature feigning to be in danger. There are quests in which the player assumes the actor position in a harassment situation too, such as “The Realm of Witches is in Danger”. Here the character is given the opportunity to poison a good witch in order to receive information from an evil witch. Tricking the good witch into eating a poisoned apple pie, the player solves her task. However, the good witch learns from the experience and in order not to be tricked by the same character again, she’ll refuse all future attempts of contact from the character.

The Hunt. *Actor: To find—by chance, by following clue (the object of search may be person, thing, or idea). Counter-actor: To hide—by simple cover, by misleading clues (feigning) (to hide oneself, an object, an idea).* The puzzle belongs in this category. In fact I find this category to be representative of the puzzle quest genre as such, designating its major feature. In a quest, the player is actor, while the entire text-space serves as counter-actor. In smaller puzzle quest events however, the counter-actor may be personalised in a non-player character, or quest objects may take this position. Within this category, players seldom assume the position of counter-actor, but it happens: disguising oneself as a bush in order to pass Rondar the Giant unnoticed is one example.

The Rescue. *Actor: To “spring” the prisoner. To be the “savior”. Counter-actor: To be a jailer—to guard against the escape.* Quest events – in particular their final event –

are often variants of this category. The player will more often assume the role of actor in such situations, rather than that of counter-actor. If the player is supposed to act as counter-actor in a rescue situation, the prisoner in question is likely to be a creature of the very evil kind.

The Seduction. *Actor: To tempt another to the "forbidden act" (to talk, laugh, make the wrong move). Counter-actor: To resist temptation; to be controlled and not influenced.* In "The Lands of Havoc", the player encounters several events in which non-player characters assume the role of actor in a Seduction situation as described above. The player is counter-actor, and is supposed to resist temptation. On a more general level, players may often experience themselves as seducer actors when encountering stubborn or awkwardly coded non-player characters or objects, trying out every possibly relevant or irrelevant command and combination of commands in order to lure valuable information out of them. Additionally, the Seduction represents a fundamental rhetorical feature of the puzzle quest genre, in which objects and non-player characters use strategies of seduction in order to keep the player from reaching his assigned goal.³²

X. Rule complexity. *Increase demands on the comprehension of participants.* In MUDs, as well as in many other computer games, paidia rules – such as how to navigate the space and the mastering of equipment – represent, if not more difficult, then at least additional challenges to understanding the ludus rules. When the space is mapped and the player knows how to use the available equipment, playing – or the fun – may start. (Cf. the distinction between negotiation time and event time, explained above.) As MUDs are text based, though, mapping the space involves closely reading the text, which may take quite some time. The next level of rule complexity is where ludus rules are added, or identified. At this point, I would like to divide between two types of ludus rules in *Tubmud*. On the one hand, there are abstract ludus rules: These are ludus rules as we know them from traditional abstract games such as *Mastermind*. There are, in fact, two instances of *Mastermind* in *Tubmud*. One is identical with the *Mastermind* we know from the physical world, except that it is played in a textually represented room, with textually represented boards and tokens, against the textually represented non-player character Old Mastermind. The other appears as part of the quest "Retrieve the Amulet of Yendor". Instead of the traditional board and tokens, this version is played on a flute. Neither does the player compete against a personalised adversary, instead the correct combination will lead to the lowering of a drawbridge that the character needs to pass in order to continue her quest.

In the first example, both game and rules are easy to identify, as the only object in the room except for Old Mastermind is a sign on a wall listing the game rules. In the second example, identifying the game and its rules is more complicated. There is no flute available where the drawbridge is. There are no hints as to how to lower the drawbridge either. First, when the player solves a different task – a task that isn't

even obviously part of the quest, as it is assigned to the player in a room that appears to be external to the quest area – she'll receive the flute, with an inscription on it reading: "Music hath charms to affect the stubborn drawbridge. Play the f-o-u-r notes and the way is open." This is no obvious way of telling the player she is going to play *Mastermind*, however. "The f-o-u-r notes" could imply almost anything. But there is another hint, a scrap hidden in a fortune cookie somewhere else in the area, reading: "There is a Mastermind deep in the dungeon." To solve this quest, thus, the player needs to be familiar with the game *Mastermind*. To be able to play the right combination in this setting, she must also be familiar with the letters musical notes translate to.

When the game can be identified as the same it is because its rules are the same. The fact that the equipment is different and the rules are not explicitly given in the latter instance adds nothing where rule complexity is concerned. While both instances of *Mastermind* take place within the framework of another game,³³ though, the first still remains *separate*.³⁴ The second is, by contrast, tightly interwoven with the quest that is framing it. Quests, however, belong to a game genre operating with quite different kind of ludus rules than abstract games such as *Mastermind*.

While the abstract game is procedural, the quest is also textual in the sense that it plays with meaning and signification. Its solution depends on the player's ability to interpret the text, identify its determination, and arrange it accordingly. Identifying its determination is the same as identifying its ludus rules – how to win the quest. It is also the same as identifying the ultimate meaning of the quest. Abstract games do not involve meaning: Set in a meaningful context – acting as the secret password to enter the castle of the Wizard of Yendor – *Mastermind* itself doesn't carry any meaning. It merely serves a meaningful purpose. Integrating the rules of *Mastermind* into the quest, though, does increase rule complexity of the quest as a whole, especially as this instance involves familiarity with yet another convention: the musical notation system.

Deprived of their reference, g as in green and g the note are interchangeable. Abstract games are not referential, thus in principle, where rule complexity is concerned, it doesn't matter whether the tokens designate colours or tones. Quests are based on the referentiality of signs, thus they do not to the same extent limit themselves from the rest of the world but may address the player's experience in any domain. This is why the nature of the token is significant in the context of the quest, but not in the context of the abstract game.

The question of rule complexity *enriching game experience* has already been indirectly addressed above, when explaining Csikszentmihalyi's concept of flow as a state beyond boredom and anxiety. To reach this state in *Tubmud*, it is necessary

to be quite experienced, which confirms the assumption that all in all its level of rule complexity is high.

Rule complexity *causing unexpected advances and reversals* applies in particular to the interpretation of quest rules: misinterpretation of the author's intention is likely to cause unexpected events. It can also be connected to knowledge of the MUD space and its available objects: Sometimes it is possible to solve a quest aporia in a way that was not intended by its creator, by applying an object imported from a different quest area.

XI. Interdependence of players: According to Gump et. al., “[a]ll games imply some interdependence competitive or cooperative—question is whether the poor play or uncooperative play of one participant can significantly affect the continuance of satisfactory play of the rest.” (Gump et. al. 1971, 412). There is one aspect related to questing that is particularly worth mentioning here, namely the limited availability of quest objects. Some quests have objects that must be collected in order to solve the quest. When taken, the object is gone for a period of time until the area is reset. A player trying to solve the quest for the first time may, if another player just removed a quest object, search in vain for an object where it should normally be found. Because there is usually no way the player can know that the object should be there if it isn't, she may consider the room fully explored, believing there isn't anything to find there, and continue searching in vain for the object in different rooms. This is not a very satisfactory situation either for the player, or for the creator of the quest whose particular composition of information, balanced with puzzles to be solved revealing new information, is in this way seriously messed up.³⁵ Now as *Tubmud* (presently, at least) does not have too many players, the chance is relatively small that more than one player at a time will be seriously engaged in a quest, that is, solving it for the first time. Re-solving a quest is however the easiest and quickest way to gain additional experience points in *Tubmud*. Experience points are valuable as they can be traded into stat points. Knowing the solution to the puzzles, and the correct way to proceed, a quest such as “Free the Golden Country” could – under its original circumstances – be completed in less than a minute's time, gaining the character a substantial amount of experience points. This quest thus was practically impossible to solve the regular, time-consuming way when more players were logged on, as the objects needed to complete it were snapped away by more experienced players as soon as they were reset. To solve this problem additional challenges were introduced to characters that already solved the quest once or more than once, making re-solving it less attractive (as no additional points were attached to the extra challenges).

XII. Volume and distributions of participation. Four levels: *Active participation, in-game passive participation, in game waiting, out of game waiting*. Entering the MUD is entering the game, but as the MUD consists of so many sub-games, it is possible to be in the overall game while observing, or not participating in, another.

Temporarily leaving a quest, that is, putting it on hold because one lost too much power, and meanwhile training skills, or doing nothing, is another option. The level of participation is very much up to the player in MUDs.

XIII. Leeway for marginal impulse expression. *Question is: "Will the game successfully tolerate 'horse play'?"* This is a very interesting question, as it concerns the freedom of expression and movement within the MUD. MUDs are, in principle, restricted spaces in the sense that the player cannot interact with the space and objects in ways that aren't predicted by the programmers. However, this is not entirely true, as unpredicted actions of the player in some cases do have unforeseen results. Experimenting with objects by trying to make them respond in unexpected ways in fact constitutes a game in itself, ascribed by Bartle to the explorer type of player. Another, perhaps more relevant, place to look for potentially successful horseplay is in the interaction between players. Horseplay applied to a role-playing situation may direct the game in quite unexpected directions – enriching the game or spoiling it, depending on how the other players respond.

XIV. Respite possibilities. *Safety zones or positions.* Rooms not containing any monsters are safety zones where the player can safely rest and recover. Safety positions do not exist, though safety properties do: a liquid making the character invulnerable for a certain period of time, for example. *Built in rest periods* are significant to game play as a period of puzzle solving after hard combat will recover the character without the player having to pause the game. Some quests are difficult exactly because respite possibilities are not readily available. Instead the player will have to collect and bring healing equipment enough to be able to stand the battle on the spot.

XV. Suspense emphasis is a relevant category in context of the previous example, where the player spends hours (sometimes days) collecting healing items and preparing her character physically – as well as herself, mentally – for the battle to come. Another aspect involving suspense is the play with the player's expectations during puzzle solving.

XVI. Switches between opposites. *Theme switch* is found in MoMu, a mirror world-within-the-world where the player is supposed to assume monster identity as her character turns into a monster while all non-player character adversaries are represented as if they were player characters. There are also thematic differences between quests. *Action switch*, in the article described as running wildly for so to freeze, cf. Gump et. al. (1971), is less relevant to apply directly, as this category appears to be closely tied to physical bodily control. Less directly applied are of course action switches that occur all the time, that is, between chatting, role-playing, exploring, fighting, healing, puzzle solving, trading objects, preparing, training skills, etc.

XVII. Pleasure-pain content of winning and losing. A majority of quests can't really be lost, as reaching the end solves them, and solving them implies having won. There are exceptions though: "The Lands of Havoc", for instance, can also be lost. The pain content of losing Havoc is quite substantial, as the situation that determines the outcome ultimately also questions the moral integrity of the player. Apart from losing a quest such as Havoc, dying is the most serious way a player may "lose" in *Tubmud*. Dying may imply *loss of possessions*, as well as suggesting *that one is inadequate skillwise*. It may also be experienced as a *loss of dignity* and involve feelings of self-pity, or that *destiny is against one*. Additionally there is a loss of experience– and stat points when dying, that force the player to spend extra time building the character back to its previous level. This is the kind of activity that Juul describes as "dead time" in a game, and thus not a very satisfying occupation.

XVIII. The Spread of winnership follows the distribution of players as described under Avedon's 8th element, "Interaction patterns". However, the question of winners and losers is not straightforward when examining quests; the player may win but this doesn't mean that the quest (or the computer) loses. Conversely, in the rare situation that the player loses, it makes no sense to claim that another party (the quest, the computer) won. Possibly the concept of winning and losing is less relevant in the context of quests than it is in the context of other games. This again may imply that quests are not proper games, but something different.

XIX. Penetration of game by reward and penalties. *Game play* is very much penetrated by symbolic rewards and punishments in *Tubmud*. Rewards may be objects that the character acquires or finds, or small victories either in the form of an epiphany or simply the defeat of a monster. Making a wrong move may be followed by a penalty: The most extreme is death, but less serious punishments such as the loss of an item, having to redo a task, or realising that the path one has been following leads nowhere, exist as well. Traps and mazes sometimes function as penalties as well. The limelight– and on-the-spot positions mentioned under dimension IX, "Role taking factors", are other examples of penetration of the game by rewards and penalties. As to rewards and penalties at *game end*, see under Avedon's 6th element, "Results and Pay-Off".

XX. Institutionalized "cheating". Non-player characters "*lying*" and *bluffing* as well as *deliberately misleading* hints are pretty much institutionalised as distinctive rhetorical features of the quest genre. *Stealing* is sometimes required in order to get hold of a necessary quest object, and "pick-pocketing" is in fact an available skill the character may acquire and practice to excellence. To literally *sneak* around in the MUD is not efficient if one's intention is to avoid or surprise monsters: Disguising oneself or turning invisible exist as more plausible alternatives, however.

XXI. Nature of the obstacles in the game. Obstacles in the game include monsters, puzzles and riddles, mazes and traps, or physical obstacles that demand special

skills (such as steep mountain walls that require well developed climbing skills). See also under dimension III, "Skill Requirements", and Avedon's element 7, "Abilities and skills required for action".

XXII. Trust dependence in MUD quests may be a matter of having to trust one's allies or adversaries that they are sincere. Just as often though, as there is always the possibility of bugs in the code, this dimension manifests itself as a matter of having to trust the obstacles one encounters to actually be intentional.

XXIII. Permanence of alliances. The only institutionalised alliances in *Tubmud* are the clans, and a "friendship" between the two players who complete the Ranabar-quest together.³⁶ With the friendship follows certain privileges, for instance a character can "feel" when her friend character is in danger (i.e. is low on hitpoints) and assist him by transferring some of her own hitpoints to him. Unless the "friendship" is cancelled, it'll last forever, and the player will be reminded of her character's friend character every time she logs on to the MUD, by a message telling her whether or not her friend character is present in the MUD at the moment.

Privileges follow clan membership as well. Clans have their own channel for internal communication, and climbing the ranks in the clan adds personal privileges to the character, such as a private room and the ability to teleport directly to fellow clan members. Joining a clan is optional, as is leaving it again. Players tend to loyally stick to the clan they join however, especially if there are a certain number of active members in the clan who keep the clan culture and the clan spirit up.

XXIV. Direct mirroring of life themes. *Tubmud* is an *institutionalized fantasy* set in a "long distant past". Life themes treated are of the "eternal questions" kind, the battle between good and evil being an apparent favourite. It is less reflective of *contemporary events and culture*, although its characters may often represent icons from popular culture. Areas may be modelled after mythical places such as Avalon and Atlantis, while questing sometimes involves re-enactments of events described in fantasy literature, or scenes from popular movies and TV series, fantasy and science fiction being the preferred genres. Of more direct mirroring of life themes, the quest "What is going on in those bushes???" is an obvious example. Searching some bushes close to one of the entrances to MoMu, the player finds a monster baby. Her quest consists in taking care of this baby until it's old enough to be on its own, when it will return to its own world. She must feed it when it's hungry, provide drinks for it when it's thirsty, and play with it when it wants to play. She must also follow it around whenever it runs away, making sure it's not getting lost, as well as protecting it from other, bigger monsters. The quest is extremely stressful, particularly if the player is not familiar enough with the MUD environment to instantly know where to find a playground, or where to find suitable food, or drinks, when the baby starts screaming.

XXV. Personalisation of game props. The fundamental game prop in *Tubmud* is the character. The relationship between player and character is changeable; sometimes the character is experienced as an individual entity, while at other times it functions more as a transparent medium for the agency of the player. Other game props that the character acquires may add to the personalisation of the character, that is, to distinguish the character as an individual entity. Experiences that the player/character goes through in the MUD may come to constitute the character's history in the imagination of the player. This further enhances the perception of the character as an individual entity to the extent that at a certain point, the player may come to think of her character as an individual "person", or "personality".³⁷ In some MUDs (MOO) players are allowed to create their own rooms and objects. This, of course, provides better opportunities for acquiring personalised game props. Some objects can also be personalised in *Tubmud*, however: a player may buy her own pet, for instance, which requires that she includes a description of it in the order. Highly ranked clan members receive their own room, which may be described and furnished according to the owner's wish and creativity. As mentioned earlier, it is possible to write a personal character description which will be visible to other players who examine the character. In addition, when a player reaches level 20, she is free to choose or invent a personal title to add to her character's name.

XXVI. Introduction of ritual to game. The fantasy medieval setting of *Tubmud* provides a perfect environment for inventing and integrating various rituals to be performed. Rituals and ritual formula are included in several quests, particularly in quests in which magic forms a significant part of the fictional context. Clan leaders will often make a ritual ceremony when welcoming a new member to the clan, or when advancing an already existing member to a higher rank. Visiting a church to pray is another type of ritual, which is required in order to resurrect the character's body after having died.

XXVII. Potential sexualization range of games. In *Tubmud's* main village of Glandon, there is a bath house where non-player character prostitutes of all genders offer sexual services. In the Old Village, there is a female street prostitute, and an escort service office. Parts of the quest Havoc offer quite explicit sexual content as well. Interaction between player characters often leads to strong feelings of affection between the involved players, which I think is to a great extent due to the low definition of information passed on which appeals so directly to the imaginative faculty of the player interpreting the text. (Cf. Stone's phone sex analysis quoted previously.)

XXVIII. Potential humor producing range of games. "Emote" and "feelings" are ways in which player characters simulate non-verbal communication in *Tubmud*. Using emote, the player defines a sentence in which she describes what the character is doing, while feelings exist as a repertoire of possible actions defined in the program, that the character performs if the player types a particular verb that defines the

action. Interactions between player characters experimenting with or improvising around the available pre-defined feelings tend to be quite humorous. The MoMu area, where everything is seen from the perspective of a monster, represents the MUD equivalent to carnival: the world turned up-side down.

XXIX. Outcome clarity. As Chris Crawford argues in *The Art of Computer Game Design*, as a game technology, computers have an advantage in that the computer itself is able to act as a referee, keeping track of an enormous amount of information. "With other technologies," he writes, "game rules must be overly simple because the humans implementing them cannot be trusted to perform simple numerical computations. The computer eliminates this restriction." (Crawford 1982, chapter 4). While the computer can implement complex arithmetic and logical rules, though, it is less receptive to reason. Elaborated role-playing games in which personal motivation (that is, motivation tied to character personality) is included among the rules to be followed may require a human game-master acting as the referee, as "personal motivation" or "realistic behaviour" are parameters that are never absolute but may require negotiation, explanation, and interpretation.

It is in this sense that *Tubmud* isn't a role-playing game, and interference during gameplay by human game-masters is limited to programmed comments or responses to player actions that the creator of the object or quest in question was able to predict. Even if a reaction may not always appear reasonable, there is no room for negotiation as the referee function is ultimately left to the computer. Predicting every possible – or even plausible – action of the player within complex meaning structures such as quests is a task one is almost certainly bound to fail. Missing or nonsense reactions to player actions therefore occur quite frequently, efficiently interrupting any continuous feeling of participating in an "interactive fiction".³⁸ Left for the computer to decide, therefore, the outcomes in *Tubmud* are for the most part clear, although not necessarily experienced by the players as fair, or even reasonable.

XXX. Challenges in *Tubmud* are of great diversity, varying according to game type and type of game event. Puzzles are first and foremost interpretative challenges, while an obstacle requiring proficiency in a certain character skill (such as climbing) may challenge the patience of the player (having to pause the game to repeatedly climb less challenging obstacles in order to train the skill to the required level). *Tubmud* game events may also challenge the player's reaction time, his inventiveness, his memory of previously encountered objects, as well as his ability for strategic thinking and planning. See also "Roles of Actor and Counter-Actor" (which was moved from its original position under this dimension to dimension IX, Role Taking Factors.)

Defining a *Tubmud* Ludology

The great variety of games and types of game events available for analysis in *Tubmud* implies that as a research object, it could relevantly be approached from several scholarly perspectives: each approach emphasising different aspects of it, while hardly any single perspective being complex enough to exhaust it as a phenomenon. In my approaches to *Tubmud*, I focus on aspects that can be conceptualised from the perspective of theatre studies and comparative literature. At the same time though, I try to avoid forcing the map onto the landscape, both by refraining from analysing events that are obviously more relevant to approach with theories developed within other fields, such as sociology or computer science, and by keeping an open mind to aspects of the events to which my usual perspective does not offer any ready-made, relevant theoretical approaches. The game aspect of *Tubmud* belongs in this last category. Ever since my first encounter with it I have implicitly thought of *Tubmud* as a “game”. In this article I have attempted to analytically distinguish different “game-like” aspects of *Tubmud* in order to make explicit some of the factors that justify, or explain, such an understanding. Because of the various game activities overlapping in *Tubmud*, however, from the player’s perspective, it doesn’t seem very adequate to make a distinction between *Tubmud* as environment or world, and the games that are being played there. From the perspective of inhabiting a fictional world with an avatar, the MUD itself is experienced as a game, with several kinds of sub-games embedded within it. Some of these games approach theatre and literature, while others do not. But even those that do approach theatre or literature often involve a game element that is not sufficiently provided for in traditional theoretical approaches to theatre and literature.

Games in *Tubmud* that do not approach theatre or literature in one way or another are seldom characteristic for the MUD as a game medium or game technology. *Mastermind*, for instance, functions perfectly as a game in the physical world and is dependent neither on the MUD nor the computer to be played. The scenario “Waiting” is a slightly different case: In principle both the rules and the randomness could probably be accounted for by a human referee if “Waiting” were to be played using a physical board and physical tokens, but it no doubt utilises functions the computer is better suited to handle. “Waiting” doesn’t necessarily require the MUD to be played, either, if we strictly consider procedural ludus and paidia rules as those which distinguish a game. Still, the representational side of the tokens (that is, guests of different races and genders) makes it appear to be a game created specifically for MoMu.³⁹

More typical – and more media specific – MUD games are role-playing games and quest adventures. In contrast to abstract games, both role-playing games and quests are game types utilising signification as a basic factor: basically and

ultimately there is always some sort of meaning exchange involved in these games. A *Tubmud*/ludology will therefore have to include a theoretical framework that takes into account the MUD as a particular kind of medium, analysing the restrictions and possibilities inherent in the form that both approach it to, and distinguish it from, other kinds of media.

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Games and MUDs

Chess Traditional

Genesis Host: genesis.cs.chalmers.se 3011

IP-address: 129.16.225.60

Homepage: <http://www.NeoSoft.com/genesis/>

Mastermind Mordecai Meirowitz. Invicta Plastics Ltd, 1971-72.

Myst Rand Miller and Robin C. Miller. Cyan/ Brøderbund Software, 1993.

Sim City Will Wright. Electronic Arts, 1995.

Solitaire Traditional.

Tetris Alexey Pazhitnov, Dmitry Pavlovsky, and Vadim Gerasimov, 1985-86.

Tubmud Host: morgen.cs.tu-berlin.de 7680 IP address: 130.149.19.20

Homepage: <http://autos.cs.tu-berlin.de/~Tubmud/>

Tubmud quests:

"Be Kind to an Old Lady", written by Alethia.

"Free the Golden Country", written by Some.

"Retrieve the Amulet of Yendor", written by Murks.

"Return to Another World", written by Domain MoMu.

"Revive some Glorious Knights of a Long Forgotten Age", written by Ethakar.

"Slay the Evil Necromancer Kobayashi", written by Chrisp.

"The Crown of the Dragons, a Famous Legend", written by Carador.

"The Lands of Havoc", written by Wizard.

"The Realm of Witches Is in Danger", written by Ardanna.

"What Is Going On in Those Bushes???", written by Domain MoMu.

Notes

1. This article is based on the introductory chapters I & II of my doctoral thesis. In later chapters I analyse in greater depth the various modes of interaction available in *Tubmud*, as well as some of its quests. Quest rhetorics and character (inter)action are also discussed on a more general theoretical level. I have kept the references to later chapters in order to show what aspects of *Tubmud* I focus on in the thesis, and have added references to previously published articles in which I've treated similar questions. I'm grateful to the SKIKT-program at the Norwegian Research Council for financial support to make the article ready for

publication. *Tubmud* is an LPMUD (Lars Pensjö's Multi-User Dungeon) situated at the Technical University in Berlin (TU-Berlin). Established in 1990, it is one of the oldest MUDs still in existence, as well as the first MUD established in Germany. It was developed from the original LPMUD, *Genesis*, situated at Chalmers University of Technology in Sweden. According to the *Genesis* homepage, Lars Pensjö wanted to create a type of MUD that combined the *TinyMUD* feature of allowing players to create and add their own rooms and objects to the MUD with the emphasis on adventure like that of *AberMUD*. (For a brief introduction to the different MUD types, see http://www.mudconnector.com/mud_intro.html). However, in order to be allowed to code and add rooms and objects, it is required that the player reach a certain level (20 in *Tubmud*), and that she leave her status as a player behind, becoming a wizard. Wizards, thus, are the creators of the MUD. They no longer involve themselves in quest solving, exploring, or fighting, but they may still socialise with the players of the MUD. *Tubmud* players who do not want to code or to become wizards may continue as high-level players after reaching level 20, progressing towards level 40. Level 40 is the highest level available, and it is practically impossible to reach. *Tubmud* is presented as a MUD the main aspect of which is the social interactivity between players. It has a very well developed system for social interaction, allowing for a wide variety of communicative modes. There are no restrictions or requirements for role-playing: the players may communicate as they please, in character or out of character. In more recent years, the number of active players in *Tubmud* has decreased, and nowadays there are seldom more than a few players logged on at the same time. Because of this situation, *Tubmud* may now be experienced as an adventure game first and foremost, providing 37 quests in addition to a number of smaller scenarios.

2. Another of Huizinga's often quoted definitions of play, which Caillois criticises for being too restrictive, defines play as "a free activity standing quite consciously outside 'ordinary' life as being 'not serious', but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner. It promotes the formation of social groupings which tend to surround themselves with secrecy and to stress their difference from the common world by disguise or other means." (Huizinga 1955 [1938], 13)
3. That is, in spite of Huizinga's announced attempt to develop a definition capable of embracing all kinds of games.
4. It should be noted that although they are named after Caillois' concepts *ludus* and *paidia*, Frasca's terms have different implications.

5. It could be argued that as far as solving a puzzle in a puzzle quest usually does lead to some kind of change in the game state, it makes little sense to pursue the claim that puzzles in themselves are not “interactive” and therefore not “games”.
6. The examples included in Avedon’s model are omitted in this representation.
7. Bartle’s killers are player killers, and as such not likely to last very long in *Tubmud* which has a very restrictive policy on player killing. In *Tubmud* player killing is only available in the Arena, where the two players entering to fight each other do this knowingly and voluntarily. Trying to attack another player outside of the Arena will simply not work; the attempt will be interrupted by a guardian angel coming to the other player’s rescue.
8. When Ted Friedman argues that to play a computer game the player needs to learn to think like a computer, in contrast to the reader of books who needs to learn to think like the author, Friedman cannot have thought of quests: In questing the correct procedure for action is often revealed through interpretation of what the author (wizard) behind the quest may have intended to happen next. (c.f. Friedman 1999).
9. Contrary to the low amount of multi-player quests in *Tubmud*, its wizrule #15 in fact recommends that quests “require role playing and team activities”.
10. An avatar is the player’s representation in the game world.
11. Mud Object-Oriented (another type of MUD).
12. This aspect is more elaborately discussed in chapter V.
13. In chapter V I also look closer to this kind of role-building in *Tubmud*.
14. This element reflects the utilitarian perspective of Avedon, connected to the main purpose he sees for his model. After the initial question of whether there can be structural elements common to all games, he continues: “If the answer is in the affirmative, then these invariant elements would not only lend themselves to scrutiny, but would enable personel to standardize game utilization for therapeutic purposes, as well as modify professional program planning devices.” (Avedon 1971, 420). Jean Baudrillard argues in *Seduction* (1990 [1979]) that a utilitarian perspective inevitably comes in conflict with the very nature of games: “We have already witnessed the debasement of play to the level of function”, he writes, “– in play therapy, play school, play-as-catharsis and play-as-creativity. Throughout the fields of education and child psychology, play has become a ‘vital function’ or necessary phase of development. Or else it has been grafted onto the pleasure principle to become a revolutionary alternative, a dialectical overcoming of the reality principle in Marcuse, an ideology of play and

the festival of others. But even as transgression, spontaneity, or aesthetic disinterestedness, play remains only a sublimated form of the old, directive pedagogy that gives it a meaning, assigns it an end, and thereby purges it of its power of seduction. Play as dreaming, sport, work, rest or as a transitional object – or as the physical hygiene necessary for psychological equilibrium or for a system's regulation or evolution. The very opposite of that passion for illusion which once characterized it." (Baudrillard 1990 [1979], 158-159) That play is by definition unproductive is a fact most game theorists agree upon. This is what Caillois writes on the subject: "A characteristic of play, in fact, is that it creates no wealth or goods, thus differing from work or art. At the end of the game, all can and must start over again at the same point. Nothing has been harvested or manufactured, no masterpiece has been created, no capital has accrued. Play is an occasion of pure waste: waste of time, energy, ingenuity, skill, and often of money for the purchase of gambling equipment or eventually to pay for the establishment." (Caillois 1979 [1958], 5-6)

15. Stats in *Tubmud* include Dexterity, Intelligence, Constitution and Strength. One of these may be raised with one point each time the character reaches a new level. Experience points that the character acquires by fighting, exploring, or solving quests can also be traded into stat points. (Dying, on the other hand, involves losing one point of each plus half of the experience points the character is currently in possession of.) Dexterity influences the character's physical skills, such as fighting and climbing; Intelligence influences the amount of spell point that is available to the character; Constitution, the amount of hit points available; and Strength the amount of items the character may carry with him.
16. Non-Player Characters (NPCs): robots representing living beings in the MUD. They are often referred to as monsters, although they can represent anything from trolls and dragons to shopkeepers and princesses.
17. This representation of Gump et. al.'s list includes the titles of all dimensions and subdimensions/variations, while excluding the more elaborate explanations and examples provided in the original.
18. MoMu is an acronym for Monster Mud, a separate area of *Tubmud* designed as a parallel universe in which roles are reversed. Entering MoMu, the player characters assume monster identity, while their NPC adversaries are represented as player characters.
19. Cf. Bartle's player categories. (Bartle 1995).
20. According to the player rules, a player who negatively interferes in the game of another player risks being banished.

21. Deciding the limits of a particular game space is sometimes problematic. The interpretative problem of deciding the limits of quest spaces is further discussed in chapters V and VI. See also Tronstad 2003a and 2003b.
22. The sub-categories in this dimension clearly reflect the pedagogical purpose of Gump et. al.'s model, i.e. to define whether or not a particular game is suited for a particular age group.
23. According to Csikszentmihalyi, though, flow can occur also in work: Artists, especially, often experience flow while working. The same criterion applies to flow in work, as to flow in play: the task at hand must be performed for its own sake, or rather, for the pleasure of performing it.
24. The character has a certain amount of hit points (the exact amount depend on his Constitution level) that will decrease each time he is hit during a fight. If his amount of remaining hit points reaches 0, he dies.
25. Food, drinks, and especially alcoholic drinks have a healing effect in LPMUDs. Lars Pensjö explains why: "I liked the social part, and wanted to encourage it. So I created a pub, and allowed players to heal faster when drunk. This encouraged players to meet and talk at the pub, gathering strength enough to go out adventuring." http://genesis.cs.chalmers.se/history_frame.htm
26. The monster spectacles have two main functions: Typing "magnify <monster>" while wearing them in a fight reveals the condition of the opponent monster continuously during the fight until the monster is dead or the character leaves the room. This way, the player can estimate the duration as well as the outcome of the fight, allowing her to leave the room if it becomes obvious that she is not going to win. Their other function is particularly important to high level characters hunting combat points: If a player examines a monster before attacking it while wearing the spectacles, she will receive an extra message added to the monster description that tells her if she's killed this particular monster before. Combat points are only gained the first time one kills a monster, and to the player of a high level character, it is not always possible to remember whether or not one has actually killed a particular monster before. At this time in the character's history there are several more monsters available that she has in fact killed than those that she has never before encountered (or encountered but not yet killed.)
27. The witch hat is further discussed in chapter IV.
28. Examples of professions available through guild association could be druid, magician, ranger, knight, or adventurer. Examples of typical races in MUDs are dwarf, elf, drow, and human.

29. "On-Line" and "Off-Line" are Newman's – in computer game context rather unfortunate – choice of terms to describe "actually engaged in playing" as opposed to "merely watching others play".
30. The player may of course choose to define and role-play a coherent character, or to add race to her character description. There are no variables in the code, however, that will determine the conduct or constitution of her character according to this race description.
31. The differences between *Tubmud* and other MUDs in this respect are further discussed in chapter IV. Character development as a process in *Tubmud* is discussed in chapter V.
32. The use of seductive strategies as a distinctive rhetorical feature of the puzzle quest as a genre is treated in chapter VI, as well as in Tronstad 2003a.
33. That is, if both the MUD and the quest are regarded individual games.
34. "*Separate*: circumscribed within limits of space and time, defined and fixed in advance". Cf. Caillois 1979 [1958], 9-10.
35. More elaborate multi-player games such as Anarchy Online avoid this problem by generating individual quest spaces to each character starting a quest.
36. "The Crown of the Dragons, a Famous Legend".
37. This process is further explained in chapter V, while other aspects of the relationship between player and character is treated in chapter IV.
38. IF, or Interactive Fiction, is probably the genre that comes closest to the MUD quest where structure and rhetoric is concerned. For an introduction to IF, see Montfort 2003.
39. I've not been able to verify whether or not this game already exist in other forms.