RULES AND BEYOND: THE RESURGENCE OF PROCEDURAL RHETORIC
A Literature Review in Game Studies

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Abstract

How do games express meaning and participate in societal development? A significant contribution to the scholarly efforts that seek to answer such questions takes the rule-based properties of games as its starting point. Termed Procedural Rhetoric, the theory is tightly interwoven with major research questions in Game Studies, yet is under-researched and lacks clarity in several respects. This paper conducts an exploratory, qualitative literature review of the theory to address the lack of information about accumulated knowledge. It discovers new perspectives that may help chart a future for the theory and for Game Studies more broadly. Three possible paths forward are also outlined. A New Agenda is suggested in which game rules and procedures are (re)instated at the core of the analysis but new perspectives are embraced concerning the role of players and of developers, the societal context, and the contributions of the researchers and the educators who study them.

Keywords: video games, procedural rhetoric, Game Studies, persuasive games
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Drawing on the 2,500-year history of rhetoric... I offer a general approach to how rhetoric functions uniquely in software in general and videogames in particular... I call this new form **Procedural Rhetoric**, the art of persuasion through rule-based representations and interactions. (Bogost, 2007, pp. viii-ix; bold added)

* * *

Games do not as much persuade players by telling them things (games as representations), but rather by confronting them with the results of their actions through the game rules. (Bourgonjon et al., 2011, n.p.)

* * *

Processes influence us. They seed changes in our attitudes, which in turn, and over time, change our culture. (Bogost, 2007, p. 340)
1 Introduction

The tension between the prominence of game rules as design elements and the difficulty to extract meaning from them has long been a source of fascination for this author, occasionally positioning his philosophical inclinations as game designer and as game scholar, respectively, at odds with each other.

When lecturing and teaching Game Studies and Game Design in Southern California, one of his most rewarding experiences was to introduce students to the concept of meaning as expressed in and by games. This opportunity was seized upon in several different ways, one of which was to challenge the students in their final paper to mount an effective argument concerning a specific rhetorical claim that they believed was embedded in a video game of their choice. Over the years, several hundred students completed the assignment as instructed, though with varying degrees of challenge and success.

One of the recurring quandaries for the students pertained to the need to analyze not only the narrative, representational elements of the game, but also the rule-based, procedural ones, which was a requirement for higher grades. To extract meaning from game mechanics required an additional layer of abstraction that not every student was comfortable with, and it seemingly exposed their arguments to counter-arguments that appeared difficult to effectively address.

The challenges that the students were facing mirror those that researchers have been facing as well, albeit at a different level. Procedural Rhetoric, as a prominent theory in Game Studies, addresses a number of questions related to persuasion both in games in general and in rules and procedure in particular. Uncovering new perspectives on this theory could help identify and answer fundamental questions about games as expressive media that can be used by students and researchers alike, and perhaps open new doors for Game Studies in the future.

1.1 Background

1.1.1 Rules, narrative and players – a brief history

Games have been part of human civilization for thousands of years. With the advent of digital games in recent decades, games have also positioned themselves at the forefront of popular culture (Aarseth, 2001, n.p.). As interactive experiences and alternate realities, games harness powers of engagement that are arguably difficult to match by other media, entertainment, toys or cultural artefacts. In his Manifesto for a Ludic Century, game designer Eric Zimmerman (2013) claims that the 21st century is an “era of games” where we “live in a world of systems” and should all “think like designers” (Ibid., n.p.). Information, he states, is “put to play” (Ibid., n.p.). Such descriptions are aligned with trends in New Media which entail new forms of expression, new communication practices and the active involvement in societal development (Malmö University, 2015).
But if games express meaning and participate in societal development, how do they do it? As the current century dawns, the emerging, international and academic field of Game Studies (Aarseth, 2001, n.p.) seeks answers to these and other fundamental questions.

In *Hamlet on the Holodeck*, Janet Murray (1997) describes the game Tetris (1984) as “a perfect enactment of the overtasked lives of Americans in the 1990s” (p. 143). By ascribing a narrative to the game, Murray plays the role of the provocateur (Voorhees, 2009, n.p.). In response, Markku Eskelinen (2001) calls this approach “interpretative violence” and responds: “It would be equally far beside the point if someone interpreted chess as a perfect American game because there’s a constant struggle between hierarchically organized white and black communities, genders are not equal, and there’s no health care for the stricken pieces.” (Eskelinen, 2001 cited in Bogost, 2006b, p. 100). Ian Bogost evaluates the arguments thus:

> If Murray’s interpretation is “horrid” because it is determined to find a story at any cost, perhaps Eskelinen’s is horrid because it is determined to conceal worldly reference at any cost. In both interpretations, something is lacking.  
> (Bogost, 2006b, p. 100)

Eskelinen’s remarks appear in the midst of, and could be considered part of, the intense scholarly debate about the respective prominence of two key elements in games - rules and narrative - that was particularly pronounced in the first few years of the 21st century. This debate, pitching “ludology” against “narratology”, highlights the dichotomy between different game elements, but it is also a source of contention and confusion among game scholars (Murray, 1997; Eskelinen, 2001; Frasca, 2003; Aarseth, 2004; Murray, 2005; Juul, 2005; Pearce, 2005; Schell, 2005). As the dust from the perceived skirmishes starts to settle around the middle of the millennium’s first decade, a popular sentiment also begins to emerge, arguably influenced, if not propelled, by the desire to end this contentious debate that threatens to hijack scholarly discourse (Pearce, 2005). This sentiment suggests that the two elements, rules and narrative, have much more in common than has been previously recognized (Frasca, 2003). It may further suggest that these elements are not governed at all by different sets of rules – that “story and gameplay are one” (Schell, 2005).

In 2006, when evaluating the points advanced by Murray and Eskelinen with reference to the games Tetris (1984) and Chess (1475) (as discussed above), Ian Bogost (2006b) identifies a problem with respect to the lack of clarity concerning the representation of worldly matters in artefacts (such as games) that have strong procedural, rule-based properties. What is missing, according to Bogost, is a framework for understanding how ludological forms (rule-based procedure) participate in the process of representation (Voorhees, 2009, n.p.).

Around the same time, Bogost (2006a; 2006c; 2007) publishes two peer-reviewed articles and a book that introduce a theory termed *Procedural Rhetoric*. The theory seeks to address, in particular, the functions and role of rules and procedure in the rhetorical and persuasive capabilities of games.

As the scholarly focus begins to move away from the debate surrounding rules and narrative, new areas of study and issues gain greater prominence. These areas highlight questions about the broader context that surround games when played. In 2011, Miguel Sicart (2011) publishes a paper in the journal *Game Studies* with the provocative title *Against*
Procedurality. The article “energized one of the most intense debates in the discipline of video Game Studies” (Skolnik, 2013, p. 147; for earlier thoughts, see also, for instance, Juul’s ‘Game/Player Problem’ referred to in Bogost, 2009, n.p.). In it, Sicart stresses the importance of play as a “creative, productive experience” in which the meaning of a game constitutes a “dialogue between the system and the player” (Sicart, 2011, n.p.). To Sicart, a meaningful analysis of play, therefore, does not include only the logics of the game, but also the values, politics, body and social being of the player that are part of her free, productive, creative expression (Ibid., n.p.). At this time, Sicart’s contribution is arguably both a reflection of and a call for a broader agenda emerging in Game Studies that emphasizes the context surrounding games in the form of, for example, players, game developers, and societal or cultural circumstances and influences. Clearly, this trend also entails downplaying ontological distinctions about games’ designs (such as the one between rules and narrative) in the pursuit of inserting the experience of play, and other factors that are formally external to a game, into existing models.

It is important to note that Sicart positions his call for greater acknowledgement of “play” in direct opposition to Bogost’s theory Procedural Rhetoric. In the introduction to his article, Sicart declares that his purpose is to “problematize the validity of the Procedural Rhetoric” and to question “the capacity of proceduralist rhetorics to address issues on the morality, politics or cultural impact, particularly in multiplayer games” (Ibid., n.p.). While “Procedurality” has “helped deepen the understanding of some important notions on the ontology of games”, the theory, as Sicart contends, “has also fostered a way of researching and designing games that deprives them of the richness, pleasures and challenges that players bring to the game.” (Ibid., n.p.). To Sicart, proceduralism, instrumentalizes the act of play and the performative character of the player’s experience by not providing enough space for interpretation (Ibid., n.p.).

1.1.2 Procedural Rhetoric

In the aforementioned Hamlet on the Holodeck, Janet Murray (1997) also defines four essential properties of digital artefacts: procedurality, participation, spatiality and encyclopedic scope (cited in Bogost, 2006a, p. 3). The most important of these properties, suggests Bogost (2007, p. 4), and one which he believes has not been adequately utilized or considered (Bogost, 2006a, p. 3), is procedurality. To Murray, the term procedural refers to the computer’s “defining ability to execute a series of rules” (Murray, 1997, p. 71). To Bogost (2007), “computers are particularly adept at representing real or imagined systems that themselves... operate according to a set of procedures.” (p. 5).

When observing what some games express or theorize about the world, it would be natural for the observer to compare them with other media forms like documentaries. But Bogost (2006a) asserts that this comparison occludes their procedurality. “...to understand what the games are saying about these historical events we need to ask how the player interacts with the rules to create patterns of meaning.” (p. 7). This is so because in video games, “the main representational mode is procedural, rather than verbal.” (Bogost, 2006c, p. 168).

Bogost defines Procedural Rhetoric in this way:
Procedural Rhetoric is the practice of using processes persuasively, just as verbal rhetoric is the practice of using oratory persuasively and visual rhetoric is the practice of using images persuasively. Procedural Rhetoric is a general name for the practice of authoring arguments through processes... Procedural Rhetoric is a subdomain of procedural authorship; its arguments are made not through the construction of words or images, but through the authorship of rules of behavior, the construction of dynamic models. (Bogost, 2007, pp. 28-29)

Accordingly, Bogost suggests that games can make claims about “how things work” through their unique position to make arguments with rules and processes (Bogost, 2007, p. 29).

To illustrate this, Bogost (2007) discusses, for example, The McDonald’s Videogame (2006) created by Molleindustria (an Italian social critic collective). In the game, the player is forced to make morally questionable decisions pertaining to the environment, to bribery, to labor practices, etc., while raising cattle, managing restaurants and operating the business effectively. The processes that are modeled in the game provide restrictions and opportunities for player actions during play. In doing so, the game “mounts a procedural rhetoric about the necessity of corruption in the global fast food business, and the overwhelming temptation of greed, which leads to more corruption” (Bogost, 2007, p. 31).

Games that mount Procedural Rhetoric effectively are referred to, by Bogost, as Persuasive Games (Ibid., p. 46). This includes both games that are designed with a main purpose to communicate a message (Serious Games) and other (e.g., commercial) games. Bogost devotes much of his book to illustrating how the theory applies to games in the areas of politics, advertising and education (Ibid.). Procedural Rhetoric is seen as harboring the potential to contribute to a humanistic ideal of transformation (Colby, 2014, p. 46):

Once a Procedural Rhetoric advances a new logic that a subject interrogates, it no longer remains possible to feign ignorance about that logic. Like love and revolution, Procedural Rhetorics persuade through intervention, by setting the stage for a new understanding unthinkable in the present. (Bogost, 2007, p. 339)

1.1.3 Procedural Rhetoric in context of other theories and disciplines

This paper is situated in the intersection of rule-based properties and the expression of meaning in games. For this purpose, the theory Procedural Rhetoric is a logical object of study, for two major reasons. First, the theory aligns perfectly with the nature of this intersection, as evident from the description of the theory in the previous section. Secondly, the theory is highly prominent and influential in the field of games. To date, Ian Bogost’s book (2007) Persuasive games: The expressive power of videogames is one of the most
frequently cited works ever written about video games.¹ Lamenting its influence, Sicart (2011) suggests that proceduralism based on Bogost’s work has “gained a stronghold in games research” (n.p.). In an article in Virtual Worlds Research, Christopher Paul (2010) suggests that Procedural Rhetoric is “the most established method of game studies analysis predicated on a rhetorical approach” (p. 4).

A somewhat related theory that has gained increasing prominence in the past years is gamification. This theory, or concept, has several different definitions in the literature, with the common idea that “game elements are introduced in non-ludic systems with the main goal to increase user engagement and motivation” (Marache-Francisco & Brangier, 2015, p. 2). Gamification, while interesting, is not adequate for our purposes, since it is primarily concerned with non-game systems. Furthermore, it typically does not directly consider the elements of persuasion and rhetoric. Overall, while some aspects of gamification may bear some relevance to our questions, the theory as such does not have adequate overlap to justify its being part of our study.

The theory Procedural Rhetoric is here considered part of the field of Serious Games. In his book, Bogost (2007) reviews parts of the history of Serious Games and some definitions of “serious” and claims that “serious games are created under the direct influence and guidance of external institutional goals” (Ibid., p. 55). He contrasts this with Persuasive games that he views as part of his theory and that “can also make claims that speak past or against the fixed worldviews of institutions...” (Ibid., p. 57). Another critique and point of distinction is Bogost’s assertion that Serious Games stress the power of content in games while Persuasive Games are focused on the power of (rule-based) Procedural Rhetoric (Ibid., p. ix).

To a considerable extent, Bogost bases his critique on his observations of the serious games movement at the time (Ibid., p. ix; p. 320). In light of contemporary perspectives and definitions of Serious Games, neither of his claims about the limitations of Serious Games is particularly convincing. In short, while the discipline of Serious Games doesn’t have a clear definition that is widely agreed upon (Marsh, 2011), it can be viewed as stemming from the capabilities of games to achieve purposes other than pure entertainment, including to deliver a message (Michael, 2006). Even if it could be established empirically that a majority of Serious Games have been developed “in the service of institutions” and that most of them limit their messages to content rather than rules, this would not imply that Persuasive Games that embody Procedural Rhetoric as envisaged by Bogost could not be considered Serious Games as well. Bogost himself points in this direction by offering “other meanings” to the term serious games that would make it commensurate to what he intends persuasive games to mean (Ibid., p. 58).

Also, Bogost’s theory Procedural Rhetoric, while connecting to different disciplines, is clearly part of the Information Technology discipline. It is firmly rooted in the concepts of

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¹ The book has been cited more than 1,100 times as indexed by Google Scholar. It is listed as the most highly ranked result, based on relevance in all categories (books, articles, etc.), for a query searching for “videogames” (link to search: https://scholar.google.com/scholar?q=videogames) and the fourth most highly ranked result for a query searching for either “videogames” or “video games” (link: https://scholar.google.com/scholar?q=%2Bvideogames+OR+%22video+games%22). Note that the information provided here was last verified through queries that were performed on 4 August, 2015. Also, these citations are not limited to high-quality scholarly work. The numbers are used here only as indication and for comparison to other works about games as to popularity and use.
procedurality and “procedural”. Murray (1997) explains that this is an essential property of the computer as a representational medium that refers to the computer’s “defining ability to execute a series of rules” (p. 71) and to “the machinic nature of computers, that they embody complex casual processes, and in fact can be made to embody any arbitrary process.” (Mateas & Stern, 2005, n.p.). Bogost also explains that procedural criticism emerges from the union of computational science and linguistic inquiry (Voorhees, 2009, n.p.).

1.2 Problem

1.2.1 Procedural Rhetoric and Game Studies

As observed earlier, Procedural Rhetoric has played a prominent and, arguably, a critical role with respect to some of the major research trends and questions that have emerged in Game Studies since the introduction of the theory at the turn of the 21st century. For example, the theory's origin, as traced back to one of the most frequently cited scholarly works about games, is forged in context of pivotal questions and debates surrounding the basic constituent elements of games (rules and narrative). Further, its theoretical foundations become fundamental building blocks of a prominent perspective (concerning the importance of procedure) that is frequently utilized for the analysis of games. Moreover, as the scholarly focus ventures ever more clearly into the realm of context surrounding games and play, Procedural Rhetoric is ensnared in controversy as the perceived counterpoint to some of the new perspectives.

Two assertions can be made here:

(1) Important research questions within Game Studies influence and are capable of influencing the theory Procedural Rhetoric.

(2) The theory Procedural Rhetoric influences and is capable of influencing important research questions within Game Studies.

As a consequence of the two points above, a third assertion can be made:

(3) Procedural Rhetoric is a critical component of and is tightly interwoven with important research questions in Game Studies.

But the relationship between the two is not as clear as it might seem at first. We will briefly illustrate and problematize this in the next two sections by looking more closely at two of the perceived roles of Procedural Rhetoric in Game Studies.
1.2.2 Rules and narrative revisited

While Bogost highlights the role and the importance of rules and procedures in games, he does so in context of visual or textual (or auditory) representations that are clearly recognized as important and that operate in tandem with the rules. For instance, the *McDonald’s Videogame* (2006) referred to earlier is littered with specific narrative references about the fast food company and its actions that contextualize the player’s choices and decisions. *Cattle* is not merely an abstract resource to be processed and sold; it also has particular symbolic and representational meanings that provide context to the player in reference both to the game world and to the real world.

It is not clear from Bogost’s work what the relationship between rules and narrative in games’ persuasion actually is. The question emerging from Murray’s (1997) statement about *Tetris* (1984), about the meaning conveyed by such games that may lack a clear representational layer, is left unresolved. And while *Procedural Rhetoric* appears, in principle, to emphasize rules more than narrative, Bogost does not directly place narrative in opposition to a game’s rules, which is acknowledged also by Sicart (2011, n.p.).

1.2.3 Context of play revisited

While *Procedural Rhetoric* is mostly concerned with the inner workings of games and the meaning produced through their design, the writings by Bogost recognize, in a number of different ways, the important role of players and their interpretations. These works do not claim, as Sicart suggests, that “the designer plays the player” (Skolnik, 2013, p. 150). Instead, Bogost (2007) situates the meaning of a game in the simulation gap, which is “the space between rule-based representation and player subjectivity” (p. 43; see also Skolnik, 2013, p. 150). This implies that the meaning of a game stems from when the rules come together with a player’s associative interpretation of the game play process (Skolnik, 2013, p. 150). Bogost (2007) writes: “videogames themselves cannot produce events; they are, after all, representations. But they can help members of a situation address the logic that guides it and begin to make movements to improve it” (p. 332; see also Colby, 2014, p. 46).

1.2.4 Procedural Rhetoric and Game Studies?

As illustrated by the examples in the two previous sections, the specific role and function of *Procedural Rhetoric* in relation to important research questions in *Game Studies* is far from certain. This obviously makes it difficult for us to identify its role and its full potential value as a theory. In essence, we do not have a complete picture of how *Procedural Rhetoric* works. This problem also mirrors, is indicative of and is related to questions surrounding the meaning of games in general. As noted by Skolnik (2013) with respect to Sicart’s (2011) perceived rebuke of Bogost’s proceduralism: “[T]hat the response to Sicart’s article was so passionate and wide-ranging suggests that the issue of where a game’s meaning is situated in unresolved and still pertinent.” (p. 148).

The following assertions can now be made:
The role and function of *Procedural Rhetoric* in relation to important research questions in *Game Studies* is unclear.

Thus it follows, since the theory *Procedural Rhetoric* is also tightly interwoven with such research questions (see assertion 3, above), that its meanings and uses as a theory are unclear as well.

If we learn more about the meanings and uses of *Procedural Rhetoric*, we will also gain a better understanding for its role and function in relation to important research questions in *Game Studies*.

Since *Procedural Rhetoric* is a critical component of research in *Game Studies* (see assertion 3), then if we learn more about its meanings and uses, we can also expect to gain knowledge about *Game Studies* in general.

In other words, if we are able to expand our knowledge about *Procedural Rhetoric* as a theory, we will also gain insights that are relevant to the existing general body of knowledge (Levy & Ellis, 2006) in *Game Studies*.

### 1.2.5 After origin of theory

The assessments in the previous section are based on *Procedural Rhetoric* as originally conceived. But in order to properly focus the work, we also need to ask: has the theory evolved or changed since its conception?

As a prolific scholar, writer and speaker, Bogost has continued to make valuable contributions to game research (see e.g. Bogost, 2008; 2009; 2011; Bogost et al., 2010) apart from his contributions to Information Technology in general. But after the formative years of the original contributions that conceived, defined and applied the theory (Bogost, 2006a; 2006c; 2007; 2008) as summarized in the previous section, there are no discernible subsequent efforts by Bogost to further elaborate on *Procedural Rhetoric* or to explain or to situate it as a theory in context of other research questions.

Hence the task of further illustrating, interpreting and applying the theory is left to other scholars. As is covered in some depth in the subsequent chapters of this paper, a relatively modest but not insignificant number of scholarly texts (more than 100) refer to *Procedural Rhetoric* in some form. Many of these, however, do not discuss the theory in a manner that adds new understanding to its meanings or uses. More importantly, no reviews of the

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2 As explained further later in this study, as of 28 July, 2015, a query with the keyword "Procedural Rhetoric" on WorldCat Local yields a result of 134 titles, though some of these are duplicates.

3 This assessment is based on the content evaluation that is performed in this study of a sample result of articles. In this process, 50% of the articles that meet the established search criteria for *Procedural Rhetoric* do not pass a content evaluation.
available literature on the theory have been found. As a consequence, there is a lack of knowledge about the possible meanings and uses of *Procedural Rhetoric* beyond its original writings and beyond individual scholarly contributions that may suggest a specific interpretation or expansion. In other words, there is a lack of information about and of understanding for existing “accumulated knowledge” on the theory (Webster & Watson, 2002, p. xvi).

Additional assertions:

(8) There is a lack of information about the accumulated knowledge on *Procedural Rhetoric*, including its potential meanings and uses.

(9) If we make a contribution that provides information about and makes sense of accumulated knowledge on *Procedural Rhetoric*, we can therefore (based on (7) and (8), above) also expect to gain valuable knowledge about its meanings and uses and, hence, also about Game Studies in general.

Therefore, a worthy goal for our study would be to contribute to the body of knowledge (Levy & Ellis, 2006) by providing information and making sense of accumulated knowledge (Webster & Watson, 2002) on *Procedural Rhetoric*.

### 1.2.6 Aim and research questions

Consistent with the conclusions reached in the previous section, our research Aim is formulated as follows:

The aim of the study is to raise new questions and to provide new perspectives on the theory *Procedural Rhetoric*, and on Game Studies more broadly, by synthesizing accumulated knowledge on the theory.

The following research questions are also formulated:

1. What are some possible different meanings and uses of *Procedural Rhetoric*?

2. What is the future role of *Procedural Rhetoric* in Game Studies?

By fulfilling the research Aim and answering the research questions, we will be able to make a substantive contribution to the body of knowledge on *Procedural Rhetoric*. Also, in light of the tight interconnection between *Procedural Rhetoric* on the one hand and important research questions in *Game Studies* on the other hand, as concluded earlier, we can anticipate and expect that the answers to our questions will also highlight further areas of exploration in *Game Studies* more broadly.

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4 A query on *WorldCat Local* for literature reviews on *Procedural Rhetoric* (using the search term: "Procedural rhetoric" +"literature review") yields 14 results (as of 28 July, 2015). All of these results lack either content (a focus on *Procedural Rhetoric*) or form (conducting a literature review), or both.
The presentation of the results from this study and of the research questions and perspectives that come from these results begins in Section 4.3 on page 25.
2 Method

2.1 General Methodological Considerations

This study conducts a literature review. This follows naturally from the stated aim that involves synthesizing accumulated knowledge on the theory Procedural Rhetoric.

As outlined in the previous chapter, the purpose of this study is to investigate an area that has not been fully explored; our primary research purpose is exploratory (Leavy, 2005, p. 10).

Upon collecting suitable data (i.e., scholarly articles), we employ a combination of quantitative (e.g., keyword searches) and qualitative (content analysis) methods (see further in Chapter 3, Literature Search Process, p. 14 ff., below). Note that while a systematic approach is adopted for the selection of articles for review, it is not asserted that the selection constitutes a “representative sample” of all the available literature on the subject.

For our data analysis, we are primarily concerned with contextual meaning based on words and texts in order to understand the subject matter; therefore, a qualitative method is applied in a manner that is further detailed at the beginning of Chapter 4, Analysis (p. 22 ff., below) (Leavy, 2005, pp. 3-4).

2.2 Main sources about Conducting a Literature Review

Before determining a proper methodology and approach for the literature review and before selecting literature on the topic as such (which in our case is Procedural Rhetoric), a few sources need to be selected that guide this process. In other words, we need to choose one or a few suitable articles about conducting a literature review as a method. Subsequently, we select three such sources as the main foundation (Webster & Watson, 2002; Brocke, 2009; Levy & Ellis, 2006). They are peer-reviewed articles published within the domain of Information Systems that specifically address how to write a literature review from different perspectives, as will be evident through their use in this study.

2.3 Literature Review Structure

Based on information provided in selected sources about literature reviews, how should the present study be structured in order to satisfy the main methodological requirements and considerations?

A useful step-by-step approach for the structure of a literature review is provided in a framework presented by Brocke et al. (2009). While this framework is not adopted to the
letter, we utilize and draw upon this in order to provide the overall structure and approach of the present study.

The Framework for literature reviewing provided by Brocke et al. (2009) involves five steps or phases:

I. Definition of review scope
II. Conceptualisation of topic
III. Literature search
IV. Literature analysis and synthesis
V. Research agenda

These steps will be briefly presented below with references to other sections in the paper where they are further addressed.

2.3.1 Phase I: Definition of review scope

In order to define the scope of a literature review, Brocke et al. (2009) suggests drawing upon the established taxonomy for literature reviews presented by Cooper (1988a cited in Brocke et al., 2009, p. 9). This taxonomy involves six characteristics (with categories) that will be briefly addressed in the following based on the categories described (Brocke, 2009, p. 10). Note that more information about the scope, theoretical focus, etc., of the paper is provided in Chapter 1, Introduction (p. 1 ff., above).

The focus (1) of the literature review conducted in this paper is on a theory (Procedural Rhetoric) and its applications.

Its main goals (2) are to summarize and integrate its findings.

The organization (3) of the review constitutes mostly a conceptual structure wherein concepts determine the organizing framework (Webster & Watson, 2002, p. xvi). The concepts that are used are those that emerge during the review and analysis of the selected articles.

The perspective (4) that is adopted falls mostly within the realm of Cooper’s “neutral or dispassionate representation” (1988b, p. 11), as opposed to the role of a deliberate advocate. Interpretations and evaluations, however, will be provided as well, consistent with the goal to present “considered judgments about what’s right, what’s wrong, what’s inconclusive...” (Knopf, 2006, p. 127).

The intended audience (5) for the paper is primarily researchers or educators in the fields of Game Studies, Game Design and Serious Games.

Finally, a paper’s degree of coverage of sources (6) in a literature review is “crucial” (Brocke et al., 2009, p. 9) and is arguably its “most distinct aspect” (Cooper, 1988b, p. 12). For this paper, articles have been selected based on their relevance to the central theory (Procedural Rhetoric) through the application of a selected set of criteria. Therefore, the adopted strategy is most closely affiliated, but not perfectly aligned, with Cooper’s central level wherein the
reviewer “concentrates on works that have been central or pivotal to a topic area” (Cooper, 1988b, p. 14). More details about the literature search are provided in Chapter 3, Literature Search Process (p. 14 ff., below).

2.3.2 Phase II: Conceptualisation of topic

A literature review should begin with “a broad conception of what is known about the topic and potential areas where knowledge may be needed” (Torraco, 2005, p. 359 cited in Brocke et al., 2009, p. 10). In this paper, such a conception is provided in Chapter 1, Introduction (p. 1 ff., above).

2.3.3 Phase III: Literature search

The search process that leads to a selection of articles for review is a key consideration of a literature review. The methods that have been adopted are explained in further detail in Chapter 3, Literature Search Process (p. 14 ff., below).

2.3.4 Phase IV: Literature analysis and synthesis

The method for analyzing the articles, as well as the results from the analysis and synthesis as such, are presented in Chapter 4, Analysis (p. 22 ff., below).

2.3.5 Phase V: Research agenda

The attempts at providing “sharper and more insightful questions for future research” (Webster & Watson, 2002, p. xix) are included in Chapter 4, Analysis (p. 22 ff., below) and further expanded upon in Chapter 5, Conclusions (p. 41 ff., below).
3 Literature Search Process

The process of selecting materials for inclusion in a literature review is a key methodological consideration that “has to be made as transparent as possible in order for the review to proof credibility” (Brocke et al., 2009, p. 4). This chapter is, therefore, devoted to describing this process.

According to Brocke et al. (2009), who conduct a literature review of literature reviews in the field of Information Systems, there is “a surprisingly large number of review publications that do not provide any detail on the underlying literature search.” (p. 4). This is true despite the central role that literature reviews play in scholarship (Ibid., p. 4).

Instead, a main aspiration in the search process ought to be to ensure a high level of both validity and reliability (Ibid., p. 5). Validity refers to whether the search process is conducted in the right way so as to effectively uncover the sources intended (within its scope). Reliability refers to the replicability of the search process so that other researchers may replicate it (Ibid., p. 5). Consequently, a goal of this paper is to explain the steps taken and to provide adequate details about the nature of those steps.

Based on this, four steps are identified for the search process:

- Defining criteria for literature selection
- Selecting system/location for the search
- Applying quantitative search methods
- Applying qualitative search methods

These four steps are further outlined in the remaining sections.

3.1 General Search Criteria

On what basis should we make decisions related to the search process?

Before setting out to select search system(s) and to carry out searches within those, we will need to establish some criteria to guide the process. The overall objective is to reach the most optimal result in this study in consideration of its aim and research questions. Based on this, three criteria are identified and described further in this section: Relevance, quality and scope of selection. In subsequent sections of this chapter, we apply these criteria (in combination) when making decisions about the steps to take in the literature search process.

3.1.1 Relevance

The sources that we use in the study need to be relevant to the theory and the problem selected for the study, pertaining to Procedural Rhetoric. Previously, we have defined this term and its appropriate theoretical scope. In the search process, we must further test the
literature that is considered for inclusion for its applicability to the study in order to determine if it covers the topic adequately (Levy & Ellis, 2006, p. 188). It is also important not to limit the search in ways that may prevent us from acquiring the most relevant sources. We should not, for instance, be confined to a certain geographic region, set of journals or research methodology (Webster & Watson, 2009, p. xv f.). Furthermore, we should take a multidisciplinary approach and look outside the main disciplinary fields (Ibid., p. xvi).

3.1.2 Quality

When Sir Isaac Newton (1676) stated that his accomplishments were due to his “standing on the shoulders of giants”, he was referring to the privilege of utilizing past knowledge and discoveries (Levy & Ellis, 2006, p. 185). As noted by Levy & Ellis (2006), however, “standing on the shoulders of midgets will not provide much of a horizon” (p. 185), hence the importance of identifying literature that meet the standards of academic rigor. One important signifier of scientific credibility is the peer-review process as a mechanism to control quality (Ibid.). It is, therefore, sensible to include this important criterion as part of the search process (see further below). Another related consideration is the reputation or the ranking of the journals in which the literature is published (Brocke et al., 2009, p. 5). Furthermore, a further indication could be the type of work produced (e.g., journal article, conference proceedings, thesis/essay at different levels such as Ph.D. vs. Master’s levels). Additional ethical considerations include, for instance, the motives and the sponsorship of authors and conferences (Levy & Ellis, 2006, p. 188).

3.1.3 Scope of selection (delimitations)

Every study, including the present one, has limitations stemming from constraints pertaining, e.g., to size (including the reader’s expected propensity for digestion of the material) and to the time allotted to its preparation. These limitations necessitate certain trade-offs between depth and breadth. In other words, an inverse relationship exists between the number of articles selected for review and the depth of analysis that can be provided based on the content of each of those articles. This trade-off can be quantified, for instance, by specifying a number of articles or total word counts. But in the end, there is a certain flexibility available as to the appropriate scope. It is important, of course, not to apply this criterion in isolation but in conjunction with the other two criteria referred to above. The scope of selection cannot be applied in a manner that jeopardizes the relevance and/or quality of the materials selected.

Additional practical constraints pertaining to the author’s access to materials may also limit the selection. This includes the availability of databases and search systems as well as the availability of and access to articles within those systems.

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5 While the ranking of journals can sometimes be a relevant consideration, it has not been included as a search criterion.
We are not in a position to process all of the relevant accumulated knowledge on *Procedural Rhetoric* in our study. Such an ambitious goal would require a thorough review, analysis and synthesis of an estimated more than 50 articles. Since these articles are expected to be widely different in scope, direction and contribution to *Procedural Rhetoric* and to *Game Studies* in general, they would lend themselves to neither a casual nor a focused quantitative study, both of which otherwise could potentially reduce the scope of work. Hence, in consideration of the scope of the present study, a smaller selection of literature must be sought. This selection is not likely to be fully representative of the full body of literature. Nevertheless, such a selection, if meeting established criteria of quality and relevance, may still provide the conditions for a meaningful contribution to the research area.

### 3.2 Search system/Location

Where should we search for the literature?

Quality research literature from leading, peer-reviewed journals is an important base for a literature review (Levy & Ellis, 2006, p. 185). Instead of searching the journals directly, however, modern search systems provide the opportunity to search across multiple journals simultaneously. This provides access to a large number of journals and also allows for topic-based searches that are not dependent on the limitations of each journal and its search system. Webster & Watson (2002) suggest that there is no justification for searching by journal instead of searching by topic across all relevant journals (p. xvi citing anonymous).

The search system that is selected for the task, however, needs to be as inclusive as possible so that the articles that are most relevant to the study are also available in this system. For this purpose, a number of electronic library *databases* are available and may be utilized in the search (Levy & Ellis, 2006, p. 189; Brocke et al., 2009, p. 5; Webster & Watson, 2002, p. xv). While useful, databases will only yield those results, however, that are available there (Levy & Ellis, 2006, p. 189). To improve upon the search results, a number of so-called federated searches have appeared. These search multiple databases and aggregate the result (Abdullah, 2014, p. 4).

Better yet, the newer so-called discovery layers “search journal article and library catalog metadata in a unified index and present search results in a single interface” (Fagan, 2012, cited in Abdullah, 2014, p. 4). In other words, they apply one set of search algorithms to retrieve and to rank results, thereby providing a different user experience (than federated searches) that greatly improves relevance rankings, response times and increased consistency (Ibid.). Major discovery layers include *ProQuest Summon, EBSCO Discovery Service, Ex Libris Primo* and *OCLC WorldCat Local* (Ibid.). Of these, *WorldCat Local’s* central index has the largest catalog of records in the world (Djenno et al., 2014, p. 3).

It follows, therefore, that utilizing *WorldCat Local* to search for articles is a choice that provides, more effectively and efficiently than other options, accuracy, relevancy and convenience in the search process. This study utilizes *WorldCat Local* as provided by the University of Skövde (available at [http://his.worldcat.org](http://his.worldcat.org)).
3.3 Search Technique & Quantitative assessment

3.3.1 Search technique options

What technique(s) should we use to search for articles?

The main technique for searching academic articles in digital records (e.g., journals, databases or discovery layers such as WorldCat Local) is through the use of keywords (Levy & Ellis, 2006, p. 190; Brocke, 2009, p. 5). Such keywords are typed as a query into a search field. It has also been suggested (Levy & Ellis, 2006, p. 190; Webster & Watson, 2002, p. xvi) that so called backward and forward searches are to be considered as well. A backward search reviews the citations of the articles identified through a keyword search. A forward search reviews articles that are citing the articles identified through a keyword search. An expanded version of such searches may also include locating other work published by the same author(s) (Levy & Ellis, 2006, p. 190).

Forward and backward searches are important in situations in which the keywords that are used do not reveal the underlying theories. This, for instance, may be the case when terms and keywords that describe similar phenomena evolve and change over time and therefore have a limited life span (Ibid., p. 190). For the present study, however, the keywords are intimately connected to the theory itself. While the questions and issues that arise in context of the theory Procedural Rhetoric connect with many areas of study that may also use different terminologies, our focal point for this paper is the theory itself as currently labeled. Also, while the concepts and notions behind the theory are older, the theory itself is less than ten years old. Therefore, there has been no discernible “evolution” of the theory itself that has altered its name. As a result, backward and forward searches are not utilized.

3.3.2 Choice of keywords

What keywords should we use to search for the literature?

In light of the scope of our study, it is not difficult to select appropriate keywords. Since the theory Procedural Rhetoric is being examined for its meanings and its uses, this term also contains the keyword(s) that are most relevant to our task.

This approach is also validated through a test wherein we conduct a set of queries that broaden the search to other terms that are connected to Procedural Rhetoric. Upon
examining the results from these searches, we find that such a broader approach does not improve upon the relevance to our objectives in light of the criteria set out for our search.6

3.3.3 The use of keywords & quantitative selection

How should we use the keyword(s) “Procedural Rhetoric” to achieve the best results?

At this stage in the process in particular, we need to take into account all of the three criteria as outlined earlier (relevance, quality and scope of selection) and to look for a result that satisfies these in a manner that is feasible. This may possibly involve an iterative process (i.e., repeating the process multiple times) if the end result (a set of articles) is not satisfactory.

A first search queries the full term as follows:7

+"Procedural Rhetoric"8

This entails the broadest search possible on the given term, i.e., the equivalent of the “Keyword+Full-text” (if using Advanced Search) of the articles that are indexed.9 On the other hand, the query only locates the full term, i.e., with the two words Procedural and Rhetoric listed in sequence. This is reasonable considering that we are looking specifically for articles that address the theory with this name.

The result yields 134 items.10 Among these, 11 results are indexed by WorldCat Local as Peer-reviewed and another 16 results are indexed as Thesis/dissertation.11 At this stage, we select these 27 articles for further scrutiny. The dissertations are included in order to identify possible PhD dissertations of relevance to the study.

A first segmentation reveals that the 11 peer-reviewed entries constitute only 5 unique results (due to duplications). As to the 16 dissertations, only 3 are at the PhD level. Thus a total of 8 results remain at this stage before a qualitative review of their relevance to the study has been conducted. Such a review (explained in the next section) may potentially reduce the total number of articles further. Therefore, additional materials need to be sought at this point before proceeding so that we have a better likelihood of acquiring sufficient end material.

How should we expand our search to attract more results in a manner which also meets the criteria that have been laid out?

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6 For example, a search on WorldCat Local (on 31 July, 2015) with the term “kf: +"video game"|"video games" +persuasive|persuasion|rhetoric|rhetorics” yields more than 100,000 peer-reviewed results. Adding “+Bogost” to the query string yields 52 peer-reviewed results, a great number of which are not focused on the content that we seek.

7 All searches in WorldCat Local are performed with the setting Libraries to search set to Libraries Worldwide unless otherwise stated.

8 The full URL to this search is https://his.worldcat.org/search?q=%2B%22Procedural+Rhetoric%22

9 Note that the searches are not case-sensitive.

10 Some of the 134 texts are duplicates; hence, the total number of unique texts is lower.

11 WorldCat Local results change over time, e.g., through the addition of new articles. The specific data provided in the study was originally retrieved in June and July of 2015 and was updated, and verified as current, as of 28 July 2015.
As mentioned previously, adding or substituting keywords would not be productive in light of the objective and the criteria for the search. Hence we should first seek a solution that is based on the existing keyword(s) (i.e., Procedural Rhetoric). Since the original 134 articles are too many to review within the scope of the work, we will need to find a reliable and systematic way of narrowing these down further. Two possible strategies/options emerge here.

The first option involves utilizing WorldCat’s own *relevance ranking*. However, as we sort the 134 items by relevance and review the titles of the top results, we find that a very high proportion of these articles (more than 50%) appear to have a very low actual relevance to the topic at hand.

The second option for segmenting the 134 results takes advantage of the ability to narrow down the search by querying a more limited part of the materials. This could be done by using our *keywords* in the *title* only. We will test this method. Requiring the full term (“Procedural Rhetoric”) in the title, however, appears too stringent. Instead, we will require that at least one of the two words (Procedural or Rhetoric) is included in the title. To apply this as a further criterion in addition to the previous one that already yielded 134 results, we now use the following query:

```
kf:"Procedural Rhetoric" ti:(procedural OR rhetoric)
```

This yields all results that include the full term “Procedural Rhetoric” somewhere in the text and that also include the word *procedural* and/or the word *rhetoric* in the title.

This query yields 44 results, but only 23 of these are articles. The others are in the categories *book, archival material or computer file* and therefore excluded. Out of the 23, 11 are duplicates. The result, therefore, is 12 different articles.

A concern with these results at this stage is that the 12 articles have not be indexed as *peer-reviewed* by WorldCat Local and, hence, may be of lesser scientific quality. However, we have discovered in earlier research that articles may sometimes be peer-reviewed even if they are not indexed as such. Therefore, we will proceed for now with these articles and revisit this question later.

At this time, we have 20 articles in total that have emerged upon the application of quantitative criteria with the use of the keyword(s) Procedural Rhetoric, as described in this section. Eight of these were identified by limiting the result to articles that were indexed as peer-reviewed. Another 12 articles were identified by limiting the result to articles that also included at least one of the two words Procedural or Rhetoric in the title.

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12 The full URL of the search is
http://his.worldcat.org/search?q=kf%3A%22procedural+rhetoric%22+ti%3A%28procedural+OR+rhetoric%29
3.4 Testing relevance and applicability (Qualitative Assessment)

How should we ensure that the articles yielded through the keyword searches are relevant to our study?

Previously, we selected 20 articles for further review in consideration of the three criteria *relevance* (based on the use of keywords), *quality* (by including peer-reviewed results) and *scope*. We are now performing a more qualitative review of these articles in order to test them further for relevance and applicability to the study.

3.4.1 Testing the articles individually

Which articles are relevant to our study?

A review of title and abstract leads to the removal of the following articles:

- Four articles include neither the word *game* (or *games*) nor the term *Procedural Rhetoric* in their Abstract.
- Two other articles do not include the word *game* (or *games*) in their Abstract.
- One other article does not include the term *Procedural Rhetoric* in its Abstract.
- One item is a Ph.D. thesis that is published as a book in which *Procedural Rhetoric*, as applied to games, appears to have no, or a very limited, role.
- One article is a review article.

Later, upon analyzing the full text of the remaining articles, we exclude two additional articles. One of them (Velsen, 2014) does not adequately discuss *Procedural Rhetoric* in theory or in practice. The other (Clyde & Wilkinson, 2011) contains some relevant content, but is written by the same authors as one of the other selected articles (Clyde & Wilkinson, 2012), which is also newer. The older article also does not make any contributions to this study beyond those that are made in the newer article.

As a result of the qualitative assessment conducted above, we now have nine remaining articles. These are listed in *Table 1*, below (see p. 25).

3.4.2 Testing the articles as a collective

Do the nine articles that we have selected provide a good foundation for our study?

In order to determine whether we have the required foundation for a literature review on *Procedural Rhetoric*, we should not focus too heavily on the number of articles as such. As stated by Brocke et al.:

...our guidelines do not intend to imply that conducting a literature search means to uncover and analyse all sources ever published. A review that
considers only five research papers, but sufficiently states which ones were chosen for whatever sensible reasons, may be of more value to both its authors and the community than a review that analyses a broad range of contributions, without providing sufficient information on where, why and what literature was obtained, hence, making it hard to judge its quality and the scope of its contribution. (Brocke et al., p. 12)

What’s more important than the number of selected articles is whether the collective work that we have selected is sufficient for our research objectives.

In order to make this determination, we must now look at the full texts of the selected articles. We therefore read the articles somewhat superficially in order to determine the main points, theoretical approaches and conclusions.

As a result, we discover that the articles represent a wide range of disciplinary approaches. Furthermore, as to both the meaning and the use of Procedural Rhetoric, the articles point to several different avenues and possibilities. Finally, the articles also raise and tackle several fundamental concepts and questions that are relevant to Game Studies and that are useful to consider in conjunction with the theory Procedural Rhetoric. More information on these points is provided in Chapter 4, Analysis (p. 22 ff., below).

At this stage, we also revisit the question of peer-review. After further examination, we learn that all of the articles that we have selected are published in peer-reviewed journals. Since only four of these articles were originally indexed as peer-reviewed by WorldCat Local, it is therefore somewhat accidental that all of our literature is peer-reviewed as opposed to being the result of a deliberate quantitatively oriented search process. Nevertheless, it is a welcome discovery that supports the aim of our study.

Based on these assessments, we conclude that the selected materials provide a good foundation for the aim that has been formulated for our work.

Note that if we had concluded that the selected literature was insufficient, we would have needed to revisit earlier steps in the search process and to explore alternative approaches, which would likely have led to a different result.

__________________________

13 Note that the search process and the analysis of the articles somewhat overlap here.
4 Analysis

In this chapter, we analyze the nine articles that have been selected for the literature review (see Table 1, below, p. 25). This is conducted in five steps. First, we establish and apply a method for the analysis and the processing of the articles. Second, we briefly review some basic information about the articles. Third, we synthesize the contents of the articles by grouping them into concepts, or topics, that emerge in the literature and then comparing and contrasting different positions and presentations as relevant in each group. Fourth, we identify a number of research questions based on our results that pertain both to the theory Procedural Rhetoric and to Game Studies in general. Fifth, we discuss the future role of Procedural Rhetoric.

4.1 Method for analysis

A useful model for the processing of materials for a literature review is provided by Levy & Ellis (2006, p. 192 ff.). It utilizes Bloom’s (1956) Taxonomy of Educational Objectives with respect to sequential steps that require gradually more cognitively demanding activities (Levy & Ellis, 2006, p. 193). The six steps thus defined are: Know the literature; comprehend the literature; apply the literature; analyze the literature; synthesize the literature, and; evaluate the literature (Ibid., pp. 192-201).

This approach is useful and is a source of inspiration for the processing, the analysis and the evaluation of the materials for this study. At the same time, we do not follow it literally; instead, we take an integrated approach wherein the different steps are merged as suitable for the tasks at hand. For example, we analyze and synthesize the materials as an integrated task.

4.1.1 Steps for processing each article

The first practical step that we take when processing an article for the literature review involves retrieving its text as listed in WorldCat Local and saving it as a document in Adobe PDF format.¹⁴ This format is chosen because it is a standard format that also provides easy access to highlighting and document search tools. Some articles are readily available (open access). Others require that we log in with user credentials at the host (in this case the University of Skövde) in order to access them. Some articles cannot be retrieved through WorldCat Local but are instead found and retrieved through links that are available at Google Scholar¹⁵. In most cases, the articles are already prepared in Adobe PDF format. When this is not the case, they are converted into PDF through an extension in the web browser. The articles are stored in this author’s file system.

¹⁴ Note that the search process and the analysis of the articles somewhat overlap here.
¹⁵ Available at https://scholar.google.com
The second step involves first reading the title and abstract and then conducting a somewhat superficial reading of the full text in order to determine the main points, theoretical approaches and conclusions (this step was also undertaken upon testing the materials for relevance as described in the previous chapter).

The third step involves reading the article thoroughly while highlighting important passages. We do this by reading the article at least once, and possibly multiple times, until it is deemed thoroughly reviewed. Highlighting is divided into two categories. The first category involves text that is deemed of direct and particular significance to the objective of this study. The second category involves text that is important in order to understand the meaning of the article but that is not directly connected to the objective. To distinguish between the two categories in the text, different colours for highlighting are used (green and yellow, respectively).

The fourth step involves searching the article for keywords by utilizing the built-in search function in Adobe PDF. We conduct two searches, one with the keyword Procedural and another with the keyword Rhetoric. The reason for this step is to ensure that important passages that cover the theory Procedural Rhetoric have been properly highlighted in the previous step.

Upon completion of the third and the fourth steps as described above, the highlighted text passages are extracted (copied) from the article and pasted into a separate document next to the highlighted article for easy review.

The fifth step involves summarizing the article (in a bullet-point format), both in our own words and through quotes from the text that are supplemented with our own comments, questions and clarifications. While doing this, we pay particular attention to the aim of the study and to other points in the article that may be related. It entails two stages. In the first stage, we seek to write down a brief, high-level synopsis based on what we recall from reading the text previously. In the second stage, we read the article again, with special attention to the highlights that were made previously. In particular, we seek to include all of the points that are connected to the first-category highlights (marked green) in the summary. In addition, we include other points from the second-category highlights (marked yellow) and from other parts of the text as deemed relevant.

The five steps described above are applied to each of the articles included in the study.

### 4.1.2 Building the Concept Matrix

After reviewing all of the articles, we are now ready to build a Concept Matrix (Webster & Watson, 2002) (see Appendix A, p. 51). For this, we utilize a spreadsheet (on Google Drive). We provide each of the articles with its own column. Next, we review each article’s summary that was compiled previously (one by one), as described below.

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16 Note that this was initially set up for ten articles, i.e., including Clyde & Wilkinson (2011), but this article was later excluded for reasons explained earlier.
As we read the summary of an article, for each concept, question, dichotomy or general point that we find, we add a short version/keywords of the article’s point in a cell in the article’s column. This cell is in a row that has been created for this particular concept or question. If no such row yet exists, we add it.

After going through all of the article summaries and adding concepts, points, etc., in new rows in the Concept Matrix, we then go back to some of the first articles that we added to the matrix in order to fill in the blanks that have emerged due to new rows/concepts/points that were added later. In our attempt to locate points/concepts that are covered in multiple articles whether briefly or extensively, we are reviewing again not only the article summaries, but also their highlights and full texts as needed.

Finally, we are adding one additional column (“synthesis”) to the Concept Matrix. For each concept/question/point/row (to the extent possible), the “trends” amongst the articles as a whole are briefly described, and the similarities and differences between them are summarized. This synthesis is later used as the starting point when analyzing and synthesizing the results as presented below.

### 4.2 About the Articles

The literature that is included in this study has been listed in Table 1 (see p. 25). The table also contains factual information about the articles that does not directly pertain to their content. A few additional comments to this table are provided below. Information about the content of the articles is provided in the next section.

All of the articles are published in peer-reviewed journals. All but two of these journals focus on technology or games; the other two journals focus on history education (*History Teacher*) and public relations (*Public Relations Review*) respectively. Three of the articles are published in the same journal (*Games and Culture*).

The literature is quite recent. All of the articles have been published over the last six years. All but one (i.e., eight articles) have been published in 2011 or later, and of those, five were published in 2013 or 2014.
Table 1 Factual information about the selected literature

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Title</th>
<th>Journal</th>
<th>Peer-reviewed</th>
<th>Journal focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bourgeois et al.</td>
<td>2011</td>
<td>From Counter-Strike to Counter-Statement - using Bartzka portal as a</td>
<td>Digital Creativity</td>
<td>Yes</td>
<td>Technology/Games</td>
</tr>
<tr>
<td>Clyde &amp; Wilkinson</td>
<td>2012</td>
<td>More than a Game: Teaching in the Game Mode: Disciplinary Knowledge, Digital Literacy, and Collaboration</td>
<td>History Teacher</td>
<td>Yes</td>
<td>History Education</td>
</tr>
<tr>
<td>Colby</td>
<td>2013</td>
<td>Writing and Assessing Procedural Rhetoric in Student-produced Video G games</td>
<td>Computers and Composition</td>
<td>Yes</td>
<td>Technology/Games</td>
</tr>
<tr>
<td>Evans</td>
<td>2013</td>
<td>Procedural Ethics: Confirming the Persuasive in Serious Games</td>
<td>International Journal of Gaming and Computer-Mediated Simulations</td>
<td>Yes</td>
<td>Technology/Games</td>
</tr>
<tr>
<td>Harper</td>
<td>2011</td>
<td>Rules, Rhetoric, and Genre: Procedural Rhetoric in Persona 3</td>
<td>Games and Culture</td>
<td>Yes</td>
<td>Technology/Games</td>
</tr>
<tr>
<td>Matheson</td>
<td>2014</td>
<td>Procedural Rhetoric: Beyond Persuasion: First Strike and the Compulsion to Repeat</td>
<td>Games and Culture</td>
<td>Yes</td>
<td>Technology/Games</td>
</tr>
<tr>
<td>Voorhese</td>
<td>2009</td>
<td>The character of difference: Procedurality, rhetoric, and subplaying games</td>
<td>Game Studies</td>
<td>Yes</td>
<td>Technology/Games</td>
</tr>
<tr>
<td>Wendler</td>
<td>2014</td>
<td>“Who Am I?&quot;: Rhetoric and Narrative Identity in the Portal Series</td>
<td>Games and Culture</td>
<td>Yes</td>
<td>Technology/Games</td>
</tr>
</tbody>
</table>

### 4.3 Results

As a result of the process described earlier in this chapter, a Concept Matrix has been completed that illustrates the concepts/points that have emerged in the selected literature, both with respect to what concepts have emerged and how these have been addressed by the literature. The most relevant information in the Concept Matrix that pertains to the concepts discussed in the text has been included in tables.

The results, as presented below, are divided into eight subsections – one general section and seven categories. The categories correspond approximately to the concepts, or clusters of concepts, that were identified earlier when building the Concept Matrix.

In the analysis below, the main text in the sections and the tables complement each other. The main text serves to highlight, clarify, or expand upon relevant parts of the information in the tables through further analysis and synthesis. It also sometimes represents an evolution of the analysis during the research process since the Concept Matrix was initially constructed.

It should further be noted that many of the tables that are included in this chapter contain text that represents short notes and keywords derived from “raw” data in the Concept Matrix.

The analyses that are offered in the different categories below are presented in ways that are consisted with the content and the structure of the coverage in the literature, which may differ between the categories. Also, since some information about the same article may “fit” in many different categories, we have had to decide in each case where the information fits best.
4.3.1 General results\textsuperscript{17}

All the reviewed articles deal with a certain aspect/component/definition of the theory Procedural Rhetoric. They also describe or analyze one or more games in context of the theoretical approach that they take. In most cases, one or a few published games are used as case studies wherein the game(s) are analyzed at some depth. These games span multiple genres (e.g., first-person shooter, puzzle-platforming, role-playing, strategy) and scopes/format (e.g., triple-A, indie, mobile and serious games). In a few cases, game prototypes that have been created by students as an educational exercise are included instead.

The articles connect Procedural Rhetoric, Game Studies and Information Technology with a wide range of other disciplines, including philosophy, education, narrative storytelling, psychoanalysis and public relations. By doing so, the articles seek to shed new light, redefine or apply Procedural Rhetoric in ways that add new perspectives and dimensions to the theory.

Five of the articles (Bourgonjon et al., 2011; Evans, 2013; Matheson, 2014 (2015); Voorhees, 2009; Wendler, 2014) seek to directly adapt, modify or expand on Procedural Rhetoric in order to improve upon its usefulness. In doing so, these articles mount an explicit or implicit critique of the theory as originally presented. In order to further improve upon Procedural Rhetoric, the articles wish to add, or emphasize more strongly, areas of focus which include the following: narrative, visual and auditory game elements; player interpretations and mental dispositions; ethics and truth, and; societal norms and development.

The remaining four articles (Clyde & Wilkinson, 2012; Colby, 2014; Harper, 2011; Seiffert, 2014) mostly accept the theory as originally conceived and as the authors perceive it. The contribution of these articles lies, instead, in their results as to the application of the theory, whether as a case study or as an educational practice.

\textsuperscript{17} See also Table 2, p. 27.
4.3.2 Procedurality, rules and narrative in Procedural Rhetoric

As referred to earlier in this study, games are often described as consisting of two types of elements: the *ludic* elements comprising mechanics, gameplay, and rules and the *representational* elements that include narrative, visual, and auditory components (Harper, 2011, s. 398; Huizinga, 1950; Caillois, 1961; Suits, 1978; Avedon & Sutton-Smith, 1981; Kelley, 1988; Salen & Zimmerman, 2003; see summary in Juul, 2003, pp. 2-3).

Procedurality, as defined and used by Bogost (2006a) drawing upon Murray (1997), focuses extensively on “rule-based models”. But, as we have previously discovered, Bogost also does not place narrative in opposition to a game’s rules (Sicart, 2011, n.p.).

When referring to the term *Procedural* and to *Procedural Rhetoric* as a theory, the selected literature largely affirms the original focus on rules being at the core of the theory (see also Table 3, below, p. 29). But they exhibit different degrees of emphasis and varying approaches as to the role of narrative and the ways in which the two elements interact. This creates many opportunities for further analysis. Narrative and visual elements can be analyzed in games such as those in the *Final Fantasy series* (1987) to show how these elements work in tandem with the games’ “procedural representations” (Voorhees, 2009, n.p.). The “procedural” and the “representational” (narratives, etc.) “levels” of a game can also be analyzed separately and later be combined, along with other perspectives, to provide a more comprehensive picture (Bourgonjon et al., 2011, n.p.). The dichotomy between rules and narrative can also

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**Table 2 General results**

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Games included</th>
<th>Game Analysis, notes</th>
<th>Connection to other disciplines</th>
<th>General approach to PR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bourgonjon et al.</td>
<td>2011</td>
<td>Bioshock</td>
<td>Player choices surrounding the ‘Little Sisters’ in the game</td>
<td>Philosophy (Deconstruction/Burke)</td>
<td>Somewhat accepts but wants to contribute to a deeper theoretical tool for analyzing how players can become more reflective and critical about meanings in games for learning purposes, etc. Expand use of rhetoric with Burke</td>
</tr>
<tr>
<td>Clyde &amp; Wilkinson</td>
<td>2012</td>
<td>Hex/History game (own design) + digital FPS game</td>
<td>How rules of games can simulate argument about history</td>
<td>History (Education)</td>
<td>Accepts PR/Bogost though adds two dimensions: just as about coherent argumentation then add truth value</td>
</tr>
<tr>
<td>Colby</td>
<td>2013</td>
<td>Student games</td>
<td>How and why some games created by students succeed</td>
<td>Education</td>
<td>Accepts PR/Bogost</td>
</tr>
<tr>
<td>Evans</td>
<td>2013</td>
<td>McDonald’s Videogame; Restricting Game</td>
<td>The three aspects of ethos apply to different themes as expressed in both mechanics and gameplay of game</td>
<td>Philosophy (Ethos) (Education), Ethics</td>
<td>Games needs to meet requirements of ethos in order to be persuasive, PR not enough</td>
</tr>
<tr>
<td>Harper</td>
<td>2011</td>
<td>Persona 3</td>
<td>Narrative, visual, and rules and what they communicate about nuclear warfare</td>
<td>Rhetoric-Game Studies</td>
<td>Accepts PR/Bogost</td>
</tr>
<tr>
<td>Matheson</td>
<td>2014</td>
<td>First Strike</td>
<td>Identifies PR but chooses only procedures, not looking at societal bias</td>
<td>Psychoanalysis, language</td>
<td>Wants to expand PR beyond persuasion to include (mental) prerequisites for persuasion to function - structural aspects of language</td>
</tr>
<tr>
<td>Seiffert</td>
<td>2014</td>
<td>Fort McMoney; Civilization</td>
<td>Race etc. in relation to U.S. society</td>
<td>Public Relations</td>
<td>Accepts PR/Bogost</td>
</tr>
<tr>
<td>Voorhees</td>
<td>2009</td>
<td>Final Fantasy (series)</td>
<td>How players construct narrative</td>
<td>Narrative</td>
<td>PR needs a contextual approach that also considers narrative, visual and social components</td>
</tr>
<tr>
<td>Wendler</td>
<td>2014</td>
<td>Portal, Portal 2</td>
<td>Race etc. in relation to U.S. society</td>
<td>Narrative</td>
<td>PR needs to more clearly include narratives, cannot rely on procedures for rhetoric</td>
</tr>
</tbody>
</table>

---
be placed at the center of the analysis (Harper, 2011). In this way, Procedural Rhetoric is used as a tool to examine how gameplay and narrative work together. Accordingly, “the crux point of Procedural Rhetoric is how ludic and narrative content are combined to convey ideological information” (Harper, 2011, p. 400). Different themes that occur in the game Persona 3 (2006) illustrate that some of the greatest potentials in games lie in the intersection of narrative and ludic frames (Harper, 2011, p. 410).

However, the ways in which Procedural Rhetoric is used also clearly highlights the persisting tension between rules and narrative as different types of elements. Procedural Rhetoric can be viewed as a break from “tradition inherited from humanities to search first and foremost for narratives, stories... or content.” (Seiffert, 2014, p. 4). When used to teach history or other disciplines, Procedural Rhetoric in games can also be seen as having the potential to maintain focus on arguments with “truth attributes” rather than “facts, form and flowery prose” as provided by simulations (Clyde & Wilkinson, 2012, p. 61). When analyzing a game’s persuasive properties, the messages communicated through gameplay and narrative can also be found to be in direct conflict with each other (Bourgonjon et al., 2011; Matheson, 2014 (2015)).

A radical interpretation and redefinition even suggests that in fact Procedural Rhetoric constitutes, or should constitute, narrative, namely such narratives that players themselves construct (Wendler, 2014). This leap takes as its starting point Bogost’s explanation that the theory involves a series of steps and procedures. It suggests that players go through such steps when playing a game and when “constructing” the narrative (Ibid.) Narrative, more so than mechanics, are here deemed to be rhetorical, for with no referent to the real world and narrative structure, Procedural Rhetoric doesn’t work (Ibid., p. 355). This interpretation – suggesting that the theory is more about narrative than rules – clearly constitutes more than an expanded interpretation; it is a clear departure from other descriptions of Procedural Rhetoric. The difficulties with this interpretation of Bogost’s writing are underscored by the example that is used to illustrate the point. The game Tax Invaders (2004), which is discussed by Bogost (2007), alters the visual attributes of Space Invaders (1978) to make a point about the "invasive" attributes of taxes, but retains the rules/gameplay of the original. To Wendler (2014), this illustrates that games may be rhetorical “in a manner completely independent of their mechanical understructure” (p. 353). But quite the contrary, Bogost (2007) suggests that the developer of Tax Invaders (2004), by forcing the player to literally battle against taxes, "has made the symbolic underpinning of their rhetorical context manifest in the rules of the game itself: a procedural rather than a verbal rhetoric." (p. 108). While Tax Invaders (2004) has not added new substantive gameplay, it nevertheless utilizes its gameplay, which is similar to that of Space Invaders (1978), as a key rhetorical device in conjunction with its visual attributes, which are original.
Table 3 Procedurality, rules, narrative, persuasion

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Rules/narrative</th>
<th>Expression/ Persuasion</th>
<th>Approach to Persuasion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bourgonjon et al.</td>
<td>2011</td>
<td>Divides up analysis into representational and procedural levels (within each main category “game” (developer) and “player” perspective) Also suggests a conflict between the two with respect to little sisters. Players choose in the long run to focus more on agency with weapons than the moral issues.</td>
<td>(no info)</td>
<td>Develop a new framework that can allow us to be critical about game’s persuasion</td>
</tr>
<tr>
<td>Clyde &amp; Wilkinson</td>
<td>2012</td>
<td>Host at simulations showing “facts” of history in a way that isn’t conducive to learning. Suggests F4 is better than “fleury press” embedded in simulations since they simulate the arguments as such.</td>
<td>(no info)</td>
<td>Game rules work as argument about how things were like</td>
</tr>
<tr>
<td>Colby</td>
<td>2013</td>
<td>Rules rhetorical in conjunction with and sometimes in conflict with audio, visual and textual rhetorics.</td>
<td>No distinction made</td>
<td>No particular stance discernible</td>
</tr>
<tr>
<td>Evans</td>
<td>2013</td>
<td>Seems to want to judge games based on criteria used for other media e.g. texts etc.</td>
<td>(no info)</td>
<td>Ethics required for use in classroom, otherwise “empty rhetoric”. Is an ethical imperative</td>
</tr>
<tr>
<td>Harper</td>
<td>2011</td>
<td>Wants to study how gameplay and narrative are fused. Refers to Bogost idea of shifting system rather than the representation. Looks at competing genre classifications and how they can be fused two. Games can be ideological also with weak narrative.</td>
<td>(no info)</td>
<td>Persuasion works best when a game combines ludic and narrative frames</td>
</tr>
<tr>
<td>Matheson</td>
<td>2014</td>
<td>In conflict, texts critical of nuclear warfare but some game play supports it “Means we must look beyond this”</td>
<td>(no info)</td>
<td>Effective message despite “hidden” behind fun - persists in unconscious. We need to account for people’s efforts to paper over horrible things</td>
</tr>
<tr>
<td>Seiffert</td>
<td>2014</td>
<td>FR is the opposite of traditional focus on narrative (though includes that too). Game has two parts: audio/visual and procedural. Promotes game’s unique properties</td>
<td>(no info)</td>
<td>Games can both convince and entertain at the same time. But may distort reality</td>
</tr>
<tr>
<td>Voorhees</td>
<td>2009</td>
<td>Narrative &amp; visuals work in tandem with Procedural. Contextual approach needed.</td>
<td>No distinction (Franca). All procedural reph in rhetorical</td>
<td>Societal context important. E.g. FF in US history</td>
</tr>
<tr>
<td>Wendler</td>
<td>2014</td>
<td>“Mechanics are not rhetorical, only narrative” Must be real-world refers to work</td>
<td>(no info)</td>
<td>Through players constructing narrative</td>
</tr>
</tbody>
</table>

4.3.3 Rhetoric and persuasion in Procedural Rhetoric

The theory Procedural Rhetoric suggests that games are capable of persuading players by making arguments about how things work, in favor of a specific point of view (Bogost, 2006a, p. 13). Persuasion and rhetoric, however, are multidimensional terms that carry a multitude of meanings and that have existed, in both theory and practice, for a very long time (Bogost, 2007, p. 15). At the same time, Bogost’s texts (2006a; 2007) on the subject leave many questions open. It is not surprising, therefore, that many of the articles address this part of the theory.

In his original article that seeks to define the term, Bogost makes a distinction between procedural expression and Procedural Rhetoric. In the former case, games may invite the player to participate in their representation and may embody some commentary in their rules (Bogost, 2006a, p. 10). But Bogost argues that it is only when games leverage procedure to represent, to communicate or to persuade toward a particular point of view that they exhibit Procedural Rhetoric (Ibid.). In his book (2007), however, he appears to point in the direction of a more integrated approach. “Following the classical model, Procedural Rhetoric entails persuasion—to change opinion or action. Following the contemporary model, Procedural Rhetoric entails expression—to convey ideas effectively.” (Ibid., pp. 28-29).

The distinction between expression and persuasion originally suggested by Bogost (2006a) is not widely accepted in the selected literature (see also Table 3, above, p. 29). Voorhees
(2009), citing Frasca (2003), notes that every simulated experience is wrought with ideology since it always includes – and excludes – certain information and options (n.p.). “When every representation is in some way ideological it is not possible to speak about representation without also considering it rhetorical.” (Ibid., n.p.). Clyde & Wilkinson (2012) also seek a broader application of rhetoric along similar lines, referring to Juul’s assertion in Half-Real (2005) that “the mode itself can be inherently convincing.” (p. 48 citing Juul, 2005).

As will be discussed further in other sections below, much of the literature clearly identifies a need to expand the theory Procedural Rhetoric in certain respects in order for persuasion in games to be effective and/or to be effectively analyzed.

As highlighted in the previous section, the value and the contribution of a game’s rules for effective persuasion, as consistent with the original meaning of Procedural Rhetoric, are upheld and illustrated in different ways in the selected articles (Clyde & Wilkinson, 2012; Colby, 2014; Harper, 2011; Bourgonjon et al., 2011; Seiffert, 2014) even though there is one exception which primarily links narrative, and not rules, with persuasion (Wendler, 2014).

4.3.4 Games and their players

As discussed earlier in this study, Procedural Rhetoric focuses, to a considerable extent, on how games are designed to achieve certain effects. It could therefore be seen as arguing for a fixed, determinate, authorial meaning. However by contrast, Bogost also acknowledges the role of players’ interpretations in his presentation of the theory (Skolnik, 2013, pp. 149-150).

Generally, passages and evident approaches in the selected articles, while not covering this matter directly or in depth, point to a clear propensity for including and analyzing the role of the player in connection with Procedural Rhetoric to a greater extent than arguably appears in Bogost’s original work (see also Table 4, below, p. 31).

If an important aspect of a game is to allow the players to construct meaning that is not directly articulated (Wendler, 2014), then the frontiers of game cannot be drawn to “exclude everything beyond the screen” (Voorhees, 2009, n.p.). For example, Kenneth Burke’s (1969) concept of circumference could be utilized to shift, enlarge or reduce the scope of analysis and therefore to “step out” of the game itself and observe the players (Bourgonjon et al., 2011, n.p.). This may entail studying internet discussions and personal weblogs where players share about their experiences (Ibid., n.p.).

The aspiration to include the player in the analysis to a greater extent is also evident in other articles that situate a game and the player in the broader context of analyses about societal and ethical values and perspectives, to which later sections turn.
4.3.5 Games and their creators

It is not particularly clear what role and significance game developers’ values and intents, and other relevant circumstances that may surround the development process, have in the theory Procedural Rhetoric.

Most of the game analyses in Bogost’s writings about Procedural Rhetoric focus on games as autonomous artefacts that “embody their commentary in their rules” (Bogost, 2006a, p. 10). Developers are, however, recognized for their role as creators (Bogost, 2006a, p. 9), are referenced (as to statements, etc.) for context and to support the points advanced (Bogost, 2006a, p. 7), and are also occasionally included directly in the analysis of the rhetorical messages as such (Bogost, 2007, p. 82).

Many of the selected articles do not articulate that the developer’s role would be a significant component to analyze in connection with Procedural Rhetoric (see also Table 4, above, p. 31). Others, however, do. When Bogost (2007) analyzes Grand Theft Auto: San Andreas (2004), for instance, and suggests that the game points out “the social reality of poverty and its related health effects” (p. 116), he is criticized for neglecting the motives of the developer (Colby, 2014, p. 45). When the addition of ethos to Procedural Rhetoric is suggested, it is deemed to include a consideration about whether the developers are qualified to make their arguments (as presented in the game) and whether the game mechanics deployed might “believe self-interest” (Evans, 2013, n.p.). In a pentadic analysis (Burke, 1966, 1969, 1969b cited in Bourgonjon et al., 2011, n.p.; see also summary of theory in the article’s Section 2.3 The dramatistic pentad) of a game, it is suggested that the “game perspective” should focus

### Table 4: Players, creators, learning and ethics/values

<table>
<thead>
<tr>
<th>Author</th>
<th>Year</th>
<th>Games/Players</th>
<th>Games/Creators</th>
<th>Learning approach etc &amp; ethics/values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bourgonjon et al.</td>
<td>2011</td>
<td>Divides up analysis into representational and procedural levels (within each main category “game” (developer) and “players” perspective) Also suggests a conflict between the two with respect to little extras. Players choose in the long run to focus more on agency with weapons than the moral issues</td>
<td>Covers both thru Burke</td>
<td>Wants people to be more critical and reflective about meaning in games so as to learn, to be “symbol-wise” Burke; methods can be used by students to be more “video game wise”</td>
</tr>
<tr>
<td>Clyde &amp; Wilkinson</td>
<td>2012</td>
<td>Focused on what happens in the game</td>
<td>Jal has stated that the mode itself can be inherently convincing</td>
<td>Students construct arguments through game procedure. Simulations simulate facts of history, which confirms.</td>
</tr>
<tr>
<td>Colby</td>
<td>2013</td>
<td>Refutes Scart’s critique of Bogost</td>
<td>Criticizes Bogost for ignoring amount of developers with GTA III</td>
<td>PI through production and analysis of games extremely useful since games are inherently procedural. Games should be viewed against humanistic ideal of transformation, setting stage for a new understanding</td>
</tr>
<tr>
<td>Evans</td>
<td>2013</td>
<td>(no info)</td>
<td>Is one criterion for ethos</td>
<td>Ethos required for use in classroom, otherwise “empty rhetoric”. Is an ethical imperative</td>
</tr>
<tr>
<td>Harper</td>
<td>2011</td>
<td>(no info)</td>
<td>Hates this through game with Madden using time for “realism” but P2 game for “horror”</td>
<td>Important in order to understand rhetorical purpose (given ex from game)</td>
</tr>
<tr>
<td>Mathison</td>
<td>2014</td>
<td>Indirectly: About people’s meaning-making of things “beyond mediation” and that we should look at more than the rhetorical structures of games</td>
<td>Fun gameplay doesn’t contradict ethical objectives, may in fact be needed to be effective</td>
<td>Games may “distort reality” which can have negative effects</td>
</tr>
<tr>
<td>Seiffert</td>
<td>2014</td>
<td>(no info)</td>
<td>(no info)</td>
<td>Games may “distort reality” which can have negative effects</td>
</tr>
<tr>
<td>Voorhees</td>
<td>2009</td>
<td>Need to consider social context (Burke) and world “outside screen”</td>
<td>(no info)</td>
<td>(no info)</td>
</tr>
<tr>
<td>Wendler</td>
<td>2014</td>
<td>Rhetorics requires personal narrative of the audience</td>
<td>(no info)</td>
<td>(no info)</td>
</tr>
</tbody>
</table>
on the developer’s industry context, design goals and perceived design results (Bourgonjon et al., 2011, n.p.). Along related lines, statements by designers can be used directly in the analysis of a game’s messages (Matheson, 2014 (2015), p. 6).

### 4.3.6 Ethics and values in Procedural Rhetoric

Bogost’s main criteria for the evaluation of a game pertain to how effective the game is at persuading on the basis of its procedural design and in light of the persuasive objectives (Bogost, 2006a). Other questions as to whether games are “fair” or “truthful”, among other ethical considerations, are largely unacknowledged. Instead, Bogost asserts that by forcing a player to acknowledge its position, a persuasive game affords the player “an understanding of that position for further inquiry, agreement or disapproval.” (Ibid., p. 13). Bogost also explicitly dismisses the notion that such a game may “brainwash” or “fool” a player into adopting the views espoused by it (Ibid., p. 13).

The selected articles represent a diverse set of approaches to ethical questions, as we will see below (see also Table 4, above, p. 31). Many seek an expansion of Procedural Rhetoric in a certain direction in order to create more space for normative and ethical considerations. By looking for ways to better ascertain a game’s ethical qualities, or context, whether implicitly or explicitly, they mount a critique of Bogost’s original conception of the theory as lacking in this regard.

A few articles, however, operate in the same spirit as Bogost’s original writings about Procedural Rhetoric and focus on the potential for positive effects that are inherent to the theory itself. Since games are “inherently procedural”, it is suggested that they ask players to learn from their participation if they want to persist in playing (Colby, 2014, p. 43 citing Gee, 2003 and Juul, 2005). As a result, with respect to finding creative and flexible solutions, to making hard decisions and to being persistent, “the acts of game design and play, specifically embodied through their procedurality, provide a wealth of opportunities to support these habits of mind” (Ibid., p. 46). Another suggested use of Procedural Rhetoric from the literature is to aid students in creating “reasonably justified truths” through the construction of arguments (e.g., about history) that is simulated by games (Clyde & Wilkinson, 2012).

One approach entails improving the analytical tools to strengthen the ability to reflect critically upon a game’s meaning. For this, Burke’s (1969) pentad, utilizing circumference and ratios, is presented as a “reflection tool” that is aligned with current research in game-based learning. It supplements Procedural Rhetoric by making people “more reflective and critical about the meanings in games” (Bourgonjon et al., 2011, n.p. citing Gee, 2010). Such tools may allow students, for example, to study all forms of persuasion “in order to ‘hesitate before making assessments, judgments, or moves to action’” (Bourgonjon et al., 2011, n.p. citing Enoch, 2004).

A concern expressed from the perspective of public policy pertains to the “distorting potential” of Procedural Rhetoric. This concern stems from the ease with which “conditions in the game world can be manipulated... it constitutes a potential threat when games, ultimately created to entertain and not simulate, raise expectations about, e.g., democracy that real systems of political order can never live up to” (Seiffert, 2014, p. 9).
A potentially serious challenge to the original conception of Procedural Rhetoric is mounted by suggesting that (serious) games are meaningfully persuasive only if they lack “classic requisites” of ethos pertaining to facts, integrity and sincerity (Evans, 2013, n.p.). Persuasion can only be maximized, it is argued, if the rhetorical and the ethical procedural aspects are in balance (Ibid., n.p.). This balance is also important, it is suggested, in order for games to be “sanctioned by curriculum experts” and to be assured “veracity” by teachers (Ibid., n.p.). Hence, The McDonald’s Videogame (2006) that is frequently used by Bogost in relation to Procedural Rhetoric (2007; 2008) is considered largely a failure in this context since it “perpetuates misconceptions” and fails to show whether the views it espouses are fair. The Redistricting Game (2010), on the other hand, which is a game designed to educate, engage and empower citizens around the issue of political redistricting, is considered a success because it provides factual information, avoids advocating a political agenda and offers hope for political reform (Evans, 2013, n.p.).

Finally, a different perspective seeks to shed new light on the play of unthinkable societal events by emphasizing rhetoric “that can explain the prerequisites necessary for persuasion to function” (Matheson, 2014 (2015), p. 3). This is done by using psychoanalysis to explain factors that drive players towards experiences that are ethically questionable (Ibid.). When confronted with what we believe is beyond mediation (e.g., nuclear war), we “compulsively attempt to signify anyway” in order to “feign the unicity of both our social world and ourselves as subjects” (Ibid., p 4). Like the child in the fort-da game (recounted by Freud) who inured himself against the potential absence of his mother by repeatedly moving a wooden reel away and back again (“gone” and “there”), we desire to “exercise control over the conditions of presence and absence” (Ibid., p. 10 citing Freud 2011a/1920). Based on this line of reasoning, the enjoyment that players may get from performing simulated unthinkable or unethical acts that are encouraged in games through their procedures is not a failure to persuade an audience (Matheson, 2014 (2015) citing Lundberg, 2012, p. 23). Instead, a game’s providing perceived enjoyment to the player in connection with ethically problematic issues and decisions could be the equivalent of the orator’s metaphor that conceals artifice by its brilliance. This permits the message to still be present in the unconscious, as a sense of unease (Ibid., p. 12).

The argument presented by Matheson (2014 (2015)) can be extended beyond the discipline of psychoanalysis on which it rests and find application as a contribution to resolving the perceived tension between serious (or questionable) messages and the playful nature of gameplay. This tension has attracted quite some scholarly attention of late and has arguably been a main cause of the partial dismissal by some scholars of rules and procedure as a constructive element in persuasive game design (cf. in this connection with the uses of the terms "ludification", "gamer mode" and "dark play"; see e.g., Linderoth & Chapman, 2013; Frank, 2014; Jørgensen, 2014; Schut, 2007, p. 222).

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18 These three qualities represent an approximation of the more precise terms from the discipline of persuasive rhetoric that are used in the article: phronesis, arête and eunoia (Evans, 2013).
4.3.7 Procedural Rhetoric in game analysis

Judging from the significant number of examples that are provided in Bogost’s original work (2006a; 2006c; 2007; 2008), Procedural Rhetoric is clearly meant to be a usable tool for the analysis of the meaning and the rhetorical messages embedded in games, often pertaining to societal values or issues.

A few of the articles follow this tradition and seek to identify, define, and describe the rhetorical meaning in one or more games with the use of Procedural Rhetoric (see also Table 2, above, p. 27).\(^{19}\)

An extensive analysis of the popular role-playing games in the Final Fantasy series (1987) attempts to connect different games in this series with American ethnic, cultural, and nationalistic figures of otherness (Voorhees, 2009, n.p.). Based on Procedural Rhetoric and supplemented by Burke’s (1968; cited in Voorhees, 2009, n.p.) notion of literature as “equipment for living”, this entails analyzing the different games’ treatment of characters and race through visual, narrative, and procedural representations during different time periods when the games were released. It involves studying and interpreting – in light of contemporary social and political issues in America at the time – diverse feature sets, including the form and the changeability of character attribute scores, the description and the evaluation of heterogeneous parties, the proliferation of character classes, the connections between class and culture, and the role of the player in creating the characters (Ibid., n.p.).

By connecting a Japanese game with American culture, the article is clearly attempting to connect the game with its possible role for, and interpretations by, players in the U.S. rather than with the intents of its creators. It advances an interrogation into “the relationship between the rules of the game, the forms of play they engender, and the knowledge about reality one constructs in the process of acting and reacting within those rules” (Ibid., n.p.). By doing so in both a cultural and a historical context, it also builds upon what Bogost (2007) has suggested:

> The videogames we make and play today may have meaning for us now, but they also defer that meaning for future players, who will experience these artifacts in different contexts. Meaning takes place on the historical scale. (p. 340)

Another analysis (Seiffert, 2014) includes two games of which the interrogation of Fort McMoney (2013), a fictitious, modern boom-town, is the most elaborate (the article also provides a brief analysis of Civilization (1991)). The article identifies and distinguishes between Fort McMoney’s (2013) “audiovisual rhetorics” and its “Procedural Rhetorics”, respectively. The audiovisual rhetorics are represented in the game’s first level and involve wandering around in a city and inquiring with residents to collect clues about the conditions

\(^{19}\) All of the selected articles feature one or more games that are analyzed as case studies and/or to illustrate the argument that is advanced (this is done mostly for published games, although in a few cases involves student prototypes). This is also highlighted further in the different sections apart from this one. In some cases, however, these analyses do not involve the direct application of Procedural Rhetoric in order to identify rhetorical meaning in the precise manner as illustrated by Bogost.
of the city (Ibid., p. 5). The “Procedural Rhetorics”, on the other hand, is represented in the game’s second, and last, level in which players vote online in surveys and through a referendum by answering questions related to public policy for the city (e.g., “Should petroleum companies pay more royalties?”). The collective votes of players lead to consequences with respect to the city’s political, economic and social conditions (Ibid., p. 5). Interestingly, the article suggests three procedural arguments embedded in the game that are related to public policy procedures (arguments about the importance of public participation, of networking and of political decisions). At the same time, it is somewhat surprising that no procedural arguments concerning public policy issues, as such, are suggested with respect to the game, especially since such references appear to be frequent (e.g., regarding the economic viability or the social consequences of boom-town expansion).

A third example is the unusual analysis provided about Portal (2007) and Portal 2 (2011) (also discussed previously) in which the narrative meaning, as constructed by the player, is examined (Wendler, 2014). This article, however, does not utilize Procedural Rhetoric in a manner that includes its core components (i.e., rules and procedure), but instead dismisses them as non-rhetorical “navigation tools” that are not responsible for the series’ massive success (Ibid., p. 353).

### 4.3.8 Procedural Rhetoric for learning

In his book, Bogost (2007) discusses learning in context of Procedural Rhetoric in games. He suggests that players develop procedural literacy “through interacting with the abstract models of specific real or imagined processes presented in the games they play” and by “reading” through direct engagement and criticism (p. 260).

The selected literature offers some case studies on the use of Procedural Rhetoric in the classroom for learning (see also Table 4, above, p. 31).

In one case, Procedural Rhetoric is used as the main foundation for practical game design exercises in post-secondary history education (Clyde & Wilkinson, 2012). Apart from using Procedural Rhetoric at the core, the authors also draw inspiration from Juul (2005) as to the inherent persuasiveness of games and, further, add a “truth attribute” reliant upon “evidence, interpretation, and argument and not just mode” (Ibid., p. 49). In the history course, students are asked to interpret arguments about history based on how game rules are devised and to design their own games (analog/digital) that contain rules which, when played, construct historical arguments. In one example, students create a board game with coloured tokens representing individuals who must “convince” other pieces of their viewpoint (on the issue of a smoke-free campus) by surrounding and “capturing” them, in order to enact change (Ibid., p. 54). This so-called gamic mode through game design activities and Procedural Rhetoric is viewed as an efficient way of establishing relationships between facts, evidence, interpretations and conclusions in history education (Ibid., p. 49).

In another case, Procedural Rhetoric is used in a College Writing course to highlight how multimodal texts communicate rhetorically and how procedurality engages a writer to “more actively consider how a reader might interact with a work” (Colby, 2014, p. 43). Having students assess and create video games with rhetorical arguments is considered a
“productive pedagogy that fosters positive habits of mind including curiosity, engagement, and creativity” (Ibid., p. 43). In one example, students use an interactive PowerPoint presentation to create a game that illustrates how attempting to reason with a bully is preferable to fighting or to running from him/her (Ibid., p. 50). While creating games with *Procedural Rhetoric* in a course poses both practical (translating ideas into working game prototypes) and conceptual (maintaining focus on clear rhetorical arguments) challenges, the author maintains that it creates an additional interactive relationship between designer/writer and gamer/audience that is consistent with the vision of education as interactional as laid out in the Kristine Johnson’s (2013) *Framework for Success in Postsecondary Writing* (Colby, 2014, p. 46).

### 4.4 Emerging Research Questions

In the previous section, we have reviewed and analyzed the selected literature with respect to a number of concepts, or topics, that have emerged. This review and analysis raises a number of pertinent research questions about the theory, and these questions are also connected to broader research questions about *Game Studies* in general. Some of these questions (particularly about the theory) are somewhat normative in nature, but many others may be directly addressed in future research. In an effort to motivate such efforts with respect to future inquiry (Webster & Watson, 2002, p. xix), these research questions are listed in Table 5 (below, p. 37 ff.).

To be clear, many of these questions are currently, or have previously been, the subject of (sometimes extensive) scientific inquiry. Nevertheless, by listing them here together, we highlight a range of relevant topics that stem directly from the selected literature and that provide opportunities for further or additional inquiry that pertains to *Procedural Rhetoric* and to *Game Studies* in general.

As research questions often do, the ones listed below clearly raise additional questions, including ones about their definitions and meaning. It is beyond the scope of this study, however, to address those further here.

The questions are listed by category as presented earlier in the review. For each category, the questions are listed in two different parts. The first part involves one or more questions that emerge in relation to our review of the literature concerning the theory *Procedural Rhetoric*. The second part involves one or more questions that can be inferred from the question(s) in the first part, but which pertain instead to *Game Studies* in general.

Note also that when multiple questions are listed for the same bullet point, they are considered to be closely connected and often to be variations of the same question or set of questions.
### Table 5  Emerging Research Questions

#### Procedurality, rules and narrative in *Procedural Rhetoric*

**Procedural Rhetoric:**
- How does *Procedural Rhetoric* relate to narrative, “content” and representational elements in games more specifically? What role do different types of narrative context or elements play in conjunction with rules and procedure in *Procedural Rhetoric*?

**General:**
- How do rules and narrative relate to and “interact” with each other as to a game’s meaning? What role does rules vs. narrative play, respectively? How integrated and similar (vs. different) are these types of elements?

#### Rhetoric and persuasion in *Procedural Rhetoric*

**Procedural Rhetoric:**
- Does *Procedural Rhetoric* as a theory encompass both expression and persuasion in games, or only persuasion? Why?

**General:**
- What are the merits and the difficulties involved in maintaining a distinction between expression and persuasion in games?
- Can rules, as such, be persuasive, and if so, how?

#### Games and their players

**Procedural Rhetoric:**
- Does *Procedural Rhetoric* as a theory consider how games may be interpreted differently depending on the player (and related context), and if so, how and to what extent?

**General:**
- What is the significance of player’s interpretations to our understanding of games and their play?
- To what extent and how can we draw conclusions about how games create meaning and persuade from analyzing their design only?

#### Games and their creators

**Procedural Rhetoric:**
- Does *Procedural Rhetoric* as a theory consider the values and the intents of developers, and if so, how and to what extent?

**General:**
- What is the significance of the values and the intents of developers to our analysis of games?
- What are the mechanisms through which developer values and intents manifest themselves in a game’s design?
- If there is a discrepancy between a developer’s express intent and a game’s design as to perceived meaning and persuasion, how should this discrepancy be addressed/resolved?

#### Ethics and values in *Procedural Rhetoric*

**Procedural Rhetoric:**
- Does *Procedural Rhetoric* as a theory consider whether persuasion in games meets ethical standards?
- What are the potential ethical considerations regarding *Procedural Rhetoric* as a theory in light of the persuasive powers of games that it highlights?

**General:**
- What is the significance and role of ethical evaluations to our analysis of games?
- What are the potential ethical considerations regarding the persuasive powers of games, e.g., in relation to societal goals?
- What are mechanics through which discrepancies stemming from different societal or ethical messages being conveyed through different elements in or surrounding games, e.g., rules versus narrative, can be resolved?

### Procedural Rhetoric in game analysis

**Procedural Rhetoric:**
- What elements of a game should be included in a game analysis that is based upon *Procedural Rhetoric*?
- What factors external to a game’s design should be included in our analysis of *Procedural Rhetoric*?

**General:**
- How do we effectively evaluate a game’s persuasive properties?
- How do we suitably include factors external to a game’s design in our analysis?

### Procedural Rhetoric for learning

**Procedural Rhetoric:**
- What are the potential uses of *Procedural Rhetoric* as a method for learning and reflection?
- How do we evaluate the effectiveness of *Procedural Rhetoric* as a method for learning and reflection?

**General:**
- What do we learn from analyzing and creating game rules and persuasive game elements?

Above: Table 5: Emerging Research Questions

### 4.5 Future Role of Procedural Rhetoric

Much has transpired in the area of game research since Espen Aarseth (2001) inaugurated *Game Studies*, “the first issue of the first academic, peer-reviewed journal dedicated to computer *Game Studies*” (Aarseth, 2001, n.p.). Also, since the introduction of *Procedural Rhetoric* by Ian Bogost (2006a; 2007) less than a decade ago, much has changed in how games are viewed and analyzed. The different perspectives and approaches that appear in articles selected for this study, as discussed previously, are in many ways reflections that mirror such changes. They provide an interesting comparison and contrast to Bogost’s original work. Not only do the articles illustrate some of the opportunities, challenges and potential reformulations to the theory *Procedural Rhetoric*, but they also highlight and contextualize some of the fundamental questions that surround the nature and context of games as technological and cultural artifacts.

What does this mean for *Procedural Rhetoric* in *Game Studies* today and in the future? Where should it go?
4.5.1 Option 1: Just the rules

One path entails limiting the scope of Procedural Rhetoric, to the extent possible, purely to the study of rules and procedure within games as pertains to their persuasive capabilities. This involves rejecting interpretations and challenges that appear to steer the theory in new or expanded directions. It focuses quite “surgically” on game rules and procedure, with a thin narrative layer constituting basic representational elements for context. Such a trajectory ensures purity and some level of consistency in connection with the term and its use (although some ambiguities are likely to remain). Researchers seeking to use Procedural Rhetoric for tangential areas would, instead, seek other related terms, theories or research areas, or come up with new ones. The obvious risk with this approach is that Procedural Rhetoric as a theory becomes irrelevant as research evolves or is accepted primarily only for its historical value. See Figure 1 for a simple illustration.

![Figure 1](image)

Figure 1 Just the Rules (Option 1). Focus on the game, with rules and a thin narrative layer.

4.5.2 Option 2: Everything goes

The selected literature points to several possible areas of expansion/modification of Procedural Rhetoric. This includes making it wider in scope by more clearly taking into account, for example, narrative, players, developers, ethical considerations and conditions for persuasion.

The second option, therefore, entails an open embrace of a large number of interpretations and expansions even if it means redefining the theory itself. In principle, this opens up for Procedural Rhetoric to absorb and to encompass as many relevant topics and perspectives as possible that pertain to the meaning of games. This path would also place less emphasis than there has been on the role of rules and procedure as such in persuasion, relative to other factors, consistent with recent perspectives in Game Studies. Such an approach might help ensure its continued use, and arguably perhaps also its “relevance”, in the sense that it would potentially also accommodate new perspectives and questions as they emerge in game research.

On the other hand, two related problems for the theory would emerge. First, its distinct meaning would be difficult to pinpoint due to its flexible nature, which makes the theory less usable as a tool. Second, its value in comparison to other theories and to game research
overall would be difficult to ascertain as its defining contribution as a “catch-all” proposition and theoretical model would be unclear. See Figure 2 for a simple illustration of Option 2.

**Figure 2** *Everything Goes* (Option 2). All elements are embraced, and somewhat equally.

### 4.5.3 Option 3: Rules and beyond

Another path is available that, in terms of scope, is situated between the two that are outlined above. Such a path recognizes that at the core, *Procedural Rhetoric* concerns persuasion through *procedurality* and considers questions about persuasion, specifically, in *games*. As a result, it needs to use, as its starting point, the unique design elements of games (i.e., rules and gameplay procedure) that set them apart from other forms of media, entertainment and popular culture such as literature, film, music, etc.

At the same time, with this approach, this core perspective would be leveraged by connecting it with a range of other theories, tools of analysis, perspectives and trends, incorporating and expanding the theory’s reach as feasible. Rather than changing its meaning in order to incorporate every theory that is somehow related to it (including narrative theory), however, studies in *Procedural Rhetoric* would here seek to make a contribution to them and to expand its own reach, by identifying concretely and specifically how game rules and procedures are related to, interact with and are situated in context of them.

One possible model that is consistent with this option is outlined below in Subsection 5.2.1 on p. 42.
5 Conclusions

5.1 Summary

In the present study, we initially set out to explore the theory *Procedural Rhetoric* and to learn more about its meanings and uses. We identify a gap between its importance to *Game Studies* and the lack of clarity and availability of accumulated knowledge on the topic. Therefore, we determine that analyzing and synthesizing more recent scholarly work based on a literature review is a fruitful endeavor that could make a valuable contribution. In consideration of the close connection between the theory *Procedural Rhetoric* and important research questions in *Game Studies*, we also suggest that results emerging about the theory would also potentially be meaningful more broadly to *Game Studies*.

We consequently engage in a systematic process intended to yield a set of scholarly articles that meet the criteria of relevance, quality and scope of selection with respect to the theory *Procedural Rhetoric*. In the end, we select nine peer-reviewed articles in which the theory is featured prominently.

The selected articles are subsequently processed with the objective to systematically identify, categorize, analyze and synthesize concepts and topics that appear across the literature.

The articles approach the theory in widely different ways. Nevertheless, several recurring concepts and topics are identified and further clustered into seven categories. The categories range from core game elements (rules and narrative) through players, developers and ethics, to the use of *Procedural Rhetoric* as an analytical and learning tool. We observe that many of the articles suggest an expansion of *Procedural Rhetoric* to encompass more questions and to connect more closely to other areas of study in order for the theory to be more comprehensive and useful.

The concepts that are covered by the literature about *Procedural Rhetoric* simultaneously cover important research areas in *Game Studies*. Hence, we find that while exploring the possible meanings and uses of *Procedural Rhetoric*, we also learn more about such general topics, consistent with our goals for this study. Accordingly, we also find that our initial assumption about the important role and interconnection of the theory with *Game Studies* in general is supported.

Our observations are further condensed into a set of emerging research questions in which questions about the theory are listed followed by questions of general relevance.

Based on the results, we conclude our analysis by pointing to some alternatives as to the future role of *Procedural Rhetoric*: Option 1 that focuses on “just the rules”; Option 2 that more broadly encompasses a wide range of aspects, and; Option 3 that falls somewhere between Option 1 and Option 2 in terms of scope and that focuses on rules at its core but incorporates other aspects into the analysis as well.
5.2 Discussion

5.2.1 Possible model for a New Agenda

The third option presented in the previous section (i.e., option Rules and beyond in Subsection 4.5.3 on p. 40) provides ample opportunity for the reinterpretation of Procedural Rhetoric in light of the changing landscape of Game Studies in ways that arguably are clearly situated within the framework of and are aligned with the spirit, if not the letter, of the original conception of the theory (Bogost 2006a; 2006c; 2007; 2008). For these reasons, this third option will be expanded upon further as the starting point for a possible New Agenda for Procedural Rhetoric.

It is significant that this approach recognizes the limits of Procedural Rhetoric with respect to its reach and scope. For example, Tobin’s (2015) account of cocktail cabinet arcade games in a bar, in which the games themselves are largely abstracted out, would then not be a relevant subject of inquiry for Procedural Rhetoric.

In other words, while Procedural Rhetoric as a research agenda and tool would not be restricted to the analysis of rhetoric through rules and procedure, it would still remain firmly based upon it. To study Procedural Rhetoric with this perspective entails studying all the different ways in which rules and procedure interact with other elements and contexts, within and outside of games, as to their persuasion.

Such a perspective would situate the theory squarely in the midst of most of the contemporary currents and research areas pertaining to how games connect with the outside world, but also allow for the theory to make a distinct and recognizable contribution to those areas focused on the role of rules and procedure in that context.

The potential for such a research agenda is discernible in different ways. For example, while the selected articles provide valuable insights into how Procedural Rhetoric may be situated or expanded in view of related research in various disciplines, there is limited specific elaboration concerning the relationship of game rules and procedure to various contextual factors. There is also, in at least one case, considerable confusion as to the role of narrative (Wendler, 2014).

This indicates that there is much left to explore and that there are significant gaps in the current research. Concerted efforts that are aligned with the agenda for Procedural Rhetoric as outlined above may help to bridge some of these research gaps.

A simple model for such an agenda could be illustrated as in Figure 3 (on the value of conceptual models, see e.g., Webster & Watson, 2002, p. xix; Levy & Ellis, 2006, 198). Taking cues from Burke’s (1969) concept of circumference and Konzack’s (2002) use of

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20 Tobin (2015, n.p.) writes: “Approached from this perspective we start to pay less attention to the digital nature of the games played through the system. It doesn’t matter so much then whether one is sitting at 1800s convertible backgammon and chess table, a 1900s green velvet-lined card table or a 1980’s cocktail unit.”
layers, the model comprises four layers, each of which “zooms out” from the previous one. The layers contain concepts/topics in Game Studies that roughly correspond to the ones that were previously identified in the analysis of the selected literature. This model may be viewed both as a description of the theory and as a possible research approach.

**Figure 3** Model for a New Agenda for Procedural Rhetoric. It comprises four layers.

*Layer 1* comprises the (persuasive) game itself, with rules at its core that are surrounded by representational (“narrative”) elements.

*Layer 2* comprises the players and the developers who influence and are influenced by the game as users and as creators of its persuasive elements.

*Layer 3* comprises the societal context surrounding players and developers that both influences and is influenced by them as they create and play the game.

*Layer 4* comprises researchers and educators who are analyzing, studying, influencing and being influenced by society, and by the players and the developers therein, in context of the games’ persuasive elements that are created and played.

Note that while researchers and educators are obviously part of society, their layer (*Layer 4*) still surrounds *Layer 3* ("societal context") in this model, rather than vice versa, since the researchers/educators are observing, studying and interacting with not only the players and developers, but the societal context, including other societal actors, as well.

In principle, this illustration arguably also resembles the discipline of Game Studies more generally as to many of its concepts/topics and as to the interrelationship of these concepts. However, importantly, it does so with a focus on persuasion, with a clear grounding in the game itself and with its rules and procedures at its core.
5.2.2 Back to rules - and beyond

Our work and our results in this study have been exploratory and quite broad in scope, despite being focused on one particular theory – Procedural Rhetoric. We have raised some fundamental questions for further inquiry. Several different concepts and topics in Game Studies have been touched upon and been given some, albeit necessarily brief, attention. This reflects the proliferation of topics and research questions that have emerged in the field. Somewhat analogically, when observing trends in Game Studies in general, we have also seen a gradual shift away from the study of game rules and procedure since the early days of the discipline.

While this process, in part, may be seen as a natural consequence of the proliferation and expansion of the discipline, it is also a premature one. For there is still much to learn and to discover about the manner in which the core properties of games as artefacts are part of and influence the ever growing landscape of research considerations about the design, play and study of games. It is precisely in this context – as an alternative or as a resurging counter-process of a sort – that Procedural Rhetoric, as envisaged in the New Agenda outlined in this study, might play a relevant and constructive role in Game Studies by acknowledging new perspectives while also offering its own distinct contributions.

For this to occur, however, an acknowledgement that rules and procedure matter and a willingness to study them will be important. Arguably, the focus on new trends has sometimes even led to a lack of mere acknowledgement that rules may have a meaningful role to play in the analysis of games, whether in relation to narrative or to contextual factors external to a game. To some, perhaps, a game’s core structure is even best forgotten, burned at the stake to the sound of drums, surrounded by an army primed by the sentiments that Sicart (2011) expresses in his provocative call for action against procedurality:

To write against procedurality is to sing the body, the presence, the player. Against procedurality an army of players stand and play, breaking the rules, misunderstanding the processes, appropriating the spaces of play and taking them somewhere else, where not even the designer can reach. (Sicart, 2011, n.p.)

And yet it has rules.

The game is a unique world of its own that orbits around a core, dynamic, intricate and elegant system. It is deliberately devised to be shared and explored. It comes to life when played in a manner that is not fully controlled by its creators but that is made possible only by them. The game is a new artificial being that is born as an artistic contribution to the real world in which we live. Painstakingly crafted through a range of structural, textual, graphical and auditory components, the game ultimately centers on its rules and procedure, while also being so much more.

At the end of the day, games, and the study of games, will be what we make of them, as creators, players, researchers and educators. It is clear, however, that Procedural Rhetoric holds potential for remaining (regaining?) an important part of that process. Bogost (2007) suggests, in his book’s final words:
As players of videogames and other computational artefacts, we should recognize Procedural Rhetoric as a new way to interrogate our world, to comment on it, to disrupt and challenge it. As creators and players of videogames, we must be conscious of the procedural claims we make, why we make them, and what kind of social fabric we hope to cultivate through the processes we unleash on the world.

Despite the computers that host them, despite the futuristic and mechanical fictional worlds they often render, videogames are not expressions of the machine. They are expressions of being human. And the logics that drive our games make claims about who we are, how our world functions, and what we want it to become. (Bogost, 2007, p. 340)

### 5.3 Future Work

Procedural Rhetoric as a theory has an important role in Game Studies and yet is somewhat unexplored. Hence, the theory is highly suitable for further inquiry and research. For example, many of the remaining questions regarding the theory and the general research questions that were identified previously in Section 4.4 (p. 36) have not been exhaustively investigated. This includes, but is not limited to, questions pertaining to the interaction and the role of the core properties of a game as presented in the model for a New Agenda (rules and procedures with a narrative layer) vis-à-vis other “concepts” identified in Chapter 4, Analysis (p. 22 ff., above), such as players, developers, persuasion, learning, society, ethics and values.

It is instructive, as well, that questions about the possibly “inherent” persuasiveness of game rules and about the required extent/nature of representational, narrative elements in order for persuasion to function, as emerging from Janet Murray’s (1997) statement about Tetris (1984), are under-researched.

An expanded version of the present study could review all of the pertinent literature regarding Procedural Rhetoric. Such a review could also seek to draw authoritative conclusions about the current body of knowledge with regards to the theory.

This paper has been prepared in an effort to shed further light on the discourse surrounding the theory Procedural Rhetoric and to point to some future directions that the theory could take. Behind it lies a quest of greater personal and collective scientific knowledge about the unique contributions of games to the world around us.

It is a quest that is ongoing.

* * *
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### Appendix A: Concept Matrix

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<tr>
<th>Concept</th>
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<td>Concept 1</td>
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<td>Concept 2</td>
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