# Towards Genre as a Game Design Research Approach

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## ABSTRACT
Game design research is a growing field within game studies. Design in research, however, raises new questions. What should game design research investigate? How generalizable should its claims be? Considering the 'ultimate particular' of design, this paper explores how design research should investigate particular demarcations of works. This paper suggests genre as an approach in game design research, arguing that genres meaningfully, albeit reflexively, demarcate 'likenesses' worth investigation. Genre demarcations can be used to ground and orient research; lists of genre-games and informal descriptions suggest, what to, and how to, investigate genre, respectively. However, scholarly propositions of genres are necessary to support research. These propositions must make explicit, contestable, and substantive designerly claims about that genre, such as design values, structural patterns, and aesthetics, laying a scholarly foundation for future claims. These foundations support scholarly tradition in game design research by providing a context to ground, situate and disseminate findings.

## Keywords
Game design research, game design, genre, genre analysis, game analysis, research-through-design

## INTRODUCTION
Scholarly tradition relies on literary foundation in which written, explicit, contestable, and substantive claims are made. This foundation supports scholarly discourse as a basis to situate research contributions within. Furthermore, it informs future research, where work may contest a claim, or explore an identified gap, or generatively expand a presupposed boundary of design. As game design research is a less articulated discipline within game studies, it lacks strong scholarly traditions in which to focus research and situate findings. Without a tradition, design research may drift into existing scholarly traditions; psychology, cultural studies, etc. For example, the CHI community frequently employs the design of new projects, including games, but design typically does not substantiate the research. As Wobbrock and Kientz (2016) point out, design provides the basis to conduct empirical studies which lead the conference's submissions. Game design

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research needs approaches to orient its action towards making meaningful contributions and a tradition to situate these contributions.

Designers make *designerly contributions.* The design discipline employs distinct epistemic positions, the "practice epistemology" (Schön 1995). This frames designerly knowledge contributions. Specifically, design is oriented toward 'the ultimate particular' (Stolterman 2008), its understandings reflect particular means towards particular ends, such as aesthetics (Hunicke et al. 2004), meaningful play (Salen and Zimmerman 2004), among other ends that are problem-set (Schön 1983). Each game has its own aspirational ends and varying interconnected factors towards these ends. The particularity of design makes generalizable claims difficult (Stolterman 2008), nevertheless, game design research needs to make claims that speak to more than one kind of game. There is a challenge to situate designerly contributions; how might one communicate the particular so that the contribution can be communicated? What is a meaningful context between the particular and the over-generalized? This challenge is represented more broadly in game studies where we lack the language "to bridge the gap between the very specific and the very general" (Klevjer 2006), where we have a tendency to investigate either extreme. Klevjer specifically pointed to genre as missed opportunity; we are genre blind because we avoid explicit engagement with specific genres.

This paper proposes genre as an approach to game design research. Genres are constructed to liken games of 'a kind'. This provides language to communicate this likeness, "between the over-particular and the over-universal" (Arsenault 2009 p.151). This provides a means of framing complexity of the interconnected factors shared between some games. This provides a meaningful demarcation worth investigating and contributing to, from the perspective of game design research. An understanding of genre provides the basis to design into it, drawing on the meaningful intersection of design factors. Genre can be expanded, challenged, or subverted. Thus, genre provides a basis to situate game design research within. However, tacit understandings of genre are not scholarly. This paper outlines an approach to establish understandings of genre that are explicit, contestable, and substantive in their claims. Design analysis provides a means to explicate understandings of genre that are substantive as scholarly propositions supporting game design research.

This paper leads with an overview of design research literature. This overview identifies the contemporary practices to design research, and considers the nature and requirements of theory for design and how designers think and communicate. The 'annotated portfolio' (Gaver and Bowers 2012) is considered as an exemplary format for situated designerly knowledge that addresses the 'provisional, contingent, and aspirational' (Gaver 2012) concerns of design. However, its orientation towards new works in new contexts limits its suitability to study and design into existing design contexts, such as genre. The underlying principles of the annotated portfolio are considered toward formulating a notion of game genre, suitable to orient game design research and situate its contributions. This formulation identifies the potential for genre as a means to situate artefacts within specific design problems, both appropriate in context, and connected in a meaningful design likeness. However, this likeness must be explicated to inform what is meant when *a genre* is invoked. This paper explores the requirements of this explication for game design research.

## DESIGN RESEARCH

Design research has grown as a discipline within game studies. Kultima provides an overview of design research in the context of games studies (2015). This review highlights the lack of engagement of game studies with broader design research, and the "epistemic gap between practice and academia" (Kultima 2015). As design is a younger discipline in research, the validity of design, as part of research, and as research, has been uncertain. Addressing this, positions tends to draw on Frayling's perspective (1993). Frayling proposed succinct language describing: *research into art and design, research through art and design* and *research for art and design* (1993). The proposition that research can be conducted through design perhaps raised the most significant interest. In response to this interest, and initial uncertainty, positions have framed the legitimacy of design practice in research. This includes perspectives framing design as a method (Zimmerman et al. 2007), an approach (Zimmerman et al. 2010), part of broader engagement with a design orientation (Fallman 2008).

These formalizations represent methodological considerations of design research. These have led to the support of design in research. This includes a growing popularity of design in games research. For example, game design is now included as dedicated tracks in conferences such as DiGRA and CHI PLAY. Existing research communities have found places for design. Although design is accepted as a valid research approach, how design can contribute to these communities, however, is less clear. Design provides a means to conduct research and to make knowledge contributions framed as theory-for-design (Zimmerman 2007), but it is not clear where this theory is situated. This raises new questions regarding the nature of design contributions.

### The Nature of Designerly Knowledge Contributions

Cross outlines a taxonomy of design research: This gap is elucidated by Cross' taxonomy of design research: "Design epistemology – study of designerly ways of knowing. Design praxiology – study of the practices and processes of design. Design phenomenology – study of the form and configuration of artefacts." (Cross 2007). Of interest is the notion of 'design epistemology", that designers have different ways about knowing. This is reflected by other authors, such as Downton (2003), who see a tacit knowing as apart from scholarly knowledge, but not apart from research. Similarly, Frayling's 'research for design' proposed that the design knowledge was embodied in the artifact (1993). This suggested that designers communicate ideas in the symbolic language of their artefacts. The artefact allows other designers a basis for interrogation and reading, that may support consideration of the design thinking and position of the author.

The designerly reading of objects is evidenced when research refers to related design works. This is useful for design by providing the means to consider a design proposition made with particular form, qualities, and in particular contexts. These readings allow designers to engage with the discussion between artefacts, artefacts that tend to be designed as 'ultimate particulars' (Stolterman 2008). The implication of design as the pursuit of 'ultimate particulars' is that design is concerned with the specific engagements with complexity. Advice for designing can differ between artefacts; they engage with different problems, ends, contexts, audiences. This complexity is sometimes better understood by reading the object than by explicating it. However, without explication, each designer's reading may vary, leading to interpretation. This is not suitable for the scholarly pursuit of design research, but does reveal some of the challenges of designerly knowledge contributions.

Gaver provides a comprehensive essay considering designerly knowledge contributions in research (2012). Building on concepts such as the 'ultimate particular', Gaver suggests how design research tends to make generative contributions (Gaver 2012). This generativity is an argument for the 'particularising' and diversifying values of design. Design offers the thinking necessary to address and set new problems, wicked problems, new contexts, new audiences. Gaver suggests that design research tends to make contributions that are 'provisional, contingent, and aspirational' (2012, p.938). A shared understanding of the provisional, contingent and aspirational provides a thread connecting related works together. Thus, generative design theory considers *particular* syntheses towards *particular* aspirational ends within *particular* contexts and situations. This kind of design theory makes claims grounded to the artefacts. This kind of theory then supports game design where it might pursue experiential and aesthetic ends, provide a new means towards this end, and address particular audiences and contexts. The generativity that affords divergent thinking in design, however, means charting into new theoretical contexts—contexts that may not exist or have a scholarly foundation, therefore producing a challenge to situate design research findings.

## Situating Generative and Particular Design Contributions

Generative contributions to design theory can be difficult to frame and situate in existing scholarly discussions. Design research may investigate into new space, new intersections, or consider the significance or interconnected factors relevant primarily, or even only, to design. Situating contributions is necessary, towards contesting and expand existing theories, and towards the pursuit of generalizability. The means of situating design knowledge is a topic being actively considered more broadly (Höök et al. 2015). One arguably prominent way design research is framed is within broader theoretical concepts. These framings include, for example, strong concepts (Höök and Löwgren 2012) and concept-driven research (Stolterman and Wiberg 2010). Concepts become a way of framing research topics and situating knowledge, "cutting across particular use situations and even application domains" (Höök and Löwgren 2012). This allows an "intermediate-level knowledge" production, offering a degree of generalizability while maintaining specific designerly concerns. However, the pursuit of pure concepts disconnects design research from its artefacts. This framing is useful then, when the concept has clear utility to inform design practice. Transparent and intrinsic utility reveals its capacity to inform or support design, and might be situated in familiar language, such that it is actively pursued. This, however, becomes a challenge when design research generates new concepts and abstract constructs, such as aesthetics; it neither has a clear purpose, language, nor body of artefacts or practice to situate and ground it.

Investigations into aesthetic and abstract design concepts, might not substantiate clear meaning, and may not have clear application at all. This creates challenges in situating their generative contributions; they need to establish a new context framing their contribution. Investigations aesthetic pursuits, such as 'ludic design' (Gaver 2002), offers valuable theory, however, lacks immediate clarity as to how a concept is grounded in its supporting artefacts. To address this, Gaver and Bowers (2012) work with a formulation of the *annotated portfolio*. The annotated portfolio presents a scholarly means of inquiry with engagement grounded to design artefacts. The works selected for the portfolio are chosen based on their relatedness, considered from the needs of design. This relatedness could be in aesthetic pursuit, instrumental ends, or as Gaver and Bowers suggest "family resemblances between designs in a mesh of similarities and differences" (Gaver and Bowers 2012). The annotated portfolio provides a means to situate design research within its own disciplinary context. Bowers argues that design research needs to consider this

context, rather than fall subject to norms of good research of other disciplines (Bowers 2012).

## Annotated Portfolio as Scholarly Explication of Related Works

Annotated portfolios are useful for game designers, because they present a means to frame the aesthetically meaningful. Annotating a portfolio of works provides a scholarly means to contextualise works without clear objective relatedness. This contextualisation is suitable for disseminating design knowledge. Contextualising works as related works allows the designer to make claims about more than one work, thus offering a degree of generalisability, or an intermediate-level knowledge, needed from research. Further, annotating the works explicates the designerly knowledge embodied in artefacts into explicit language. Unlike embodied artefact knowledge, annotation affords clear and explicit claims. These claims are clearly articulated, contestable, and able to be disseminated. Thus, annotated portfolios support academic traditions.

The annotated portfolio, however, has an orientation about *research from design*; it provides the basis for practice to form part of research, and consequently, an orientation about new design research. The annotated portfolio creates *new* contexts about research from design. As authors such as Fallman (2008) point out, design practice is only part of research. Specifically, Fallman's design research triangle highlights three means of engaging with design research: design studies, design exploration, and design practice (2008). This perspective identifies designerly investigation, other than design practice, or research from design. Furthermore, it suggests an engagement in design broader than exploration into markedly new design spaces. This highlights a need to support designerly inquiry other than practice, and a means to connect inquiry to existing traditions. In other words, investigate the particulars of new works within the existing context, rather than formulated contexts.

## GENRE

Genre is a used to demarcate likeness between things (Arsenault 2009). The word genre derives from the French of "a kind". Genre speaks to the likeness, in kind, of games. To this effect, Clearwater points out "genre is a conceptual model or tool. The use of genre (as a concept) is to recognize that the field of human expression exhibits certain patterns" (Clearwater 2011 p.39). As such, genre situates games amongst other games with shared patterns deemed significant. There are different understandings of what patterns are significant to genre. Some authors give primacy to expressions of gameplay (Wolf 2002), and others to narrative or visual aesthetic, as pointed out by Apperly (2006). Others highlight the difficulty of systematic classification (Clarke et al. 2015).

Discussions on genre are concerned with the cultural aspects of the concept, as they are socially constructed (Clearwater 2011), open to evolution, nuance, and subversion (Apperly 2006, Arsenault 2009, Clearwater 2011), are both descriptive (Arsenault 2009) and prescriptive (Arsenault 2009, Clarke et al. 2015) of form or otherwise influential (Clarke et al. 2015), often informed by industry (Apperly 2006, Arsenault 2009, Clearwater 2011). These discussions engage with the concerns of usage of genre in other media, such a literature and film (Wolf 2002, Apperly 2006, Arsenault 2009, Clearwater 2011). Consequently, an early focus of genre in video game literature is with differentiating video games from other media, specifically film and literature. Since then, new approaches to genre have been considered towards different ends.

## Approaches to Genre

Literature into game genre has taken different perspectives. Humanist perspectives consider how genre is a socially, the significance and emergence of the concept, and its tacit and problematic claims (Arsenault 2009 and Clearwater 2011) and the qualities from a critical perspective (Apperley 2006). Drawing on systematic and objective approaches, such as for Information and Library Sciences, other authors have considered genre as a categorical delimitation of games (Wolf 2002, Lee et al. 2014, and Clarke et al. 2015). Such invocations of genre are generally to draw like games together, and therefore apart from other games.

### *Genre as Socially Constructed*

Clearwater (2011) points out that genre is in a process of continual refinement, and consequently any notion of a genre is volatile. This reinforces Arsenault's evolutionary perspective of genre and fitness (2009). Arsenault (2009) uses the concept of perpetual genre evolution to discuss the usage of genre in game studies, the history of genre, with contemporary application. From this perspective, genre is setting the bar for *what is*, and moreover, *what's good*, about a genre. Addressing the evolution of genre in game design, Arsenault draws on the comment by Daniel Cook that innovation is "Playing King-of-the-Genre" (2005, p.2). Arsenault points out a ludic perspective on genre boundary; innovation is had when a new genre is created, or mechanics in an existing one are refined, however considers higher-order problems than structural elements, such as social meaning and aesthetic, as underpinning of genre. Genre as complex social meaning, rather than reductive and objective elements, is similarly expressed by Clearwater, highlighting the interdependence of genre qualities, specifically of representational or iconographic elements (2009); the played aspects of the game—they are inseparable when viewed as a political-historical piece.

### *Genre as Taxonomy, Category, and Classification*

Arsenault described genre taxonomies are being used "as a way of breaking down the vast continent of video games into more manageable provinces (Arsenault, 2009 p. 155). Clarke et al. provide an overview of taxonomic attempts to games (2015). They identify the parallels to use of the genre concept in media broadly and the limitations of this concept when applied to interactive media (i.e. the game). This highlights the purpose of categorizing games and that the community that will use it must be considered; categorization will address usefulness to a community and avoid irrelevancy (Clarke et al. 2015).

Classification systems attempt to classify games by making categorical, definitive, and mutually exclusive claims about games. These claims tend to adopt a form of structural analysis. This perspective is employed by authors such as Clarke et al. (2015) and Lee et al. (2014). This approaches a degree of objectivity, tacitly rejecting the socially constructed perspectives on genre. Instead, the researcher identifies qualities they deem significant to games and sufficiently expressive to differentiate them. By taking a structural consideration of games, these approaches tend to reduce games into components and then makes games against specific expression on specific dimensions, possibly ignoring all other dimensions. For example, facet analysis identifies the purpose of party games as serving the needs of the party, and therefore categorizes the type of game strictly on the fact of purpose (Lee et al. 2014).

These approaches are useful for the information and library sciences perspective. If a game must be located physically in a single location, such as in a library, then developing

a definitive claim about a genre and mutually exclusive categorization of that game is necessary. However, this is not necessary for design. Design rather may benefit in considering genre plurality, i.e. that a game exists in multiple genres.

### *Ontological and Structural Approaches*

Structural approaches to genre attempt to break down games, in ways like taxonomic approaches, however, without aim of singular exclusive positions about games. These include ontologies (Zagal et al. 2007), typologies (Aarseth 2003), anatomies (Djaouti et al. 2008), and models (Djaouti et a. 2011). These perspectives consider that there is structural similarity between games, but that genre imprecise and limited for comparative analysis. Consequently, while each differing in theoretical context, origin, and methodology, each of these frameworks present a way to objectively and structurally analyse and compare games altogether. Like genre theory, authors are concerned with the interactivity of games, like genre, and are often concerned with qualities of games as interactive media and such identify how games express elements such as gameplay (Wolf 2002, Zagal et al. 2007, Djaouti et al. 2008, Djaouti et a. 2011), theme (Adams 2009, Arsenault 2009), temporality (Aarseth, 2003), purpose (Avedon 1981, Djaouti et al. 2011, Adams 2009, Clarke et al. 2015). As these frameworks are concerned with breaking down games, they are tied to the question of "what is a game?" more so than "what is a genre?".

Zagal et al. (2007) present an ontological framework based on prototype theory that organizes game elements toward understanding interactivity in games. This framework provides a vocabulary to describe and analyze games. This framework places top significance on objective structural elements embedded in the game itself, before connecting these to play. This is related to Avedon's structural elements (Avedon 1981) of games. Avedon's structural elements includes: purpose of the game, procedure for action, rules governing action, number of required participants, roles of participants, results or pay-off, abilities and skills required for action, interaction patterns, physical setting and environmental requirements, required equipment.

Elverdam and Aarseth's typology (2007), building on the work of Aarseth (2003), aims primarily to support critical comparison between games. This typology engages with games in general, including other forms such as sports, pen and paper, and board games. The authors highlight that a key advantage to this typological model is its ability to support the adding, rejecting, or modifying of dimensions it employs without compromising its integrity. In other words, it is an open-ended language to describe games. This typology describes a wide variety of games, and lacks the orientation towards the salient characteristics of each genre.

Lessard presents an historically informed hierarchical model to game genre (Lessard 2014). This model presents genres as a high level of abstraction under which pattern formation creates mechanics focused genre architectures. Under architectures, lies sub-genre (or form), and below this, title specific implementations or 'content. The hierarchical model is useful for designers in communicating the degree of particularity or generalizability within a genre; is a nuance specific to the title, to the "sub-genre", or a trait deemed substantive to a genre altogether? Like other structural approaches, this makes certain assumptions about games that can be expressed in the gameplay oriented language, however, the hierarchical framing could be considered with other frameworks. Perhaps the crucial limitation to this perspective, specifically for designers, is its historic nature. As Juul points out, "we cannot know ahead of time where the distinction between genre and subgenre will be located." (Juul 2016). While not necessarily inhibitive, it

presents an interested conversation for designers constructing new genres, or working with nascent genres. Further, this raises the question whether sub-genres might better be considered as distinct, albeit related, genres if a hierarchy order is not self-evident. Otherwise, this suggests that sub-genre exists only considering the ubiquity or primacy of a super-genre.

Taxonomic approaches to games and genre offer a means for analyzing games, structurally, so that they may be compared. This perspective is useful for enumerating the different facets, dimensions, elements, and other factors of games, as well as exploring all of the possible expressions of these. However, these approaches do not consider the synthesis and composition of these factors, not their applicability towards aesthetics and abstracted or higher-order pursuits of design.

## Utility of Genre for Design

There are no formal approaches to understanding genre for design. However, genre has been described as model to inform design, as a high-level choice, such as in PPAX framework (Cowley et al. 2014) as well as a tradition in game design, providing a tradition of practice (Jenkins 2004) to draw upon. Tacit understandings of genre provide language that bridges "between the over-particular and the over-universal" (Arsenault 2009 p.151). This allows designers to use genre to invoke understandings about the likeness between game of a kind. This expands on the use of the related works concept by moving orientation about understanding of a game, to understanding of a kind of games. Genre offers a language to communicate and generalize about a common likeness between games, in lieu of clear verbal form.

Arsenault describes that, from the production perspective, "video game genre can be understood as the codified usage of particular mechanics and game design patterns to express a range of intended play-experiences." (2009 p. 171), suggesting that production is concerned with these patterns as materialization of a history of played experience that can be drawn upon to be imitated or improved upon. This perspective highlights the utility of genres to set the bar for kinds of game. This extends genre usefulness from communicating during the design process, but also in-between it, driving new and old works against a common baseline to be interrogated.

Clarke et al. claim that "genre divisions influence authors and artists, leading them to create works within those narrow confines that then reify that genre." (2015 p.9). However, that reification that genre presents is a foundation that can be considered during the design process. Whether genre is antagonized, expanded, challenged, or subverted, it is motivated by the designer and production settings, and not inherent to the genre.

### *Constituting Genre for Design*

There have been varying focuses of what constitutes a video game genre. The claim "Video game genre study differs markedly from literary or film genre study due to the direct and active participation of the audience" (Wolf 2002 p.114) aimed to differentiate video game from film and literature, principally as being interactive media. This position has put gameplay at the forefront of consideration of genre. As Arsenault put it genre taxonomies break down games "with the same credo applied across the board: 'gameplay comes first'." (Arsenault, 2009 p. 155). There are, however, many other approaches that consider narrative, theme, and other factors (Apperly 2006). A more recent shift is considering aesthetics and the experiences of genre. These perspectives align with the pursuits of designers, and the need to consider how factors of games interconnect.

Toward this point, Arsenault claims that "the genre of a game is tied not to an isolated, abstracted checklist of features, but to the phenomenological, pragmatic deployment of actions through the gameplay experience. Gameplay is partly functional and partly aesthetic. Video game genre is rooted in game aesthetics, not game mechanics" (2009 p.171). Adopting aesthetics as the binding and defining factor of genre is useful for design.

### *Challenges for Scholarly Use of Genre Language*

Giving the socially constructed and evolving nature of genre, the original boundaries of a genre might not remain relevant or significant in defining the meaning of a genre. As Arsenault (2009) points out, that although *Mass Effect* (BioWare 2007) uses a third person perspective, it plays as a first-person shooter. Although the first-person perspective typically defines the first-person shooter genre, this distinction in *Mass Effect* presents an implication; that understandings of genre are uncertain, and therefore claims about a game being in a genre are also uncertain. Understandings of genres is tacit and reflexive, rather than the basis of scholarly scrutiny. Therefore, definitions of genres in scholarly contexts are in themselves controversial. Criteria for knowledge as part of a scholarly tradition must be contestable, defensible, and substantive. It must make claims about what is the likeness binding a genre. However, to be suitable for design, it must not reduce this likeness into taxonomic claims. Instead, understandings must be substantiated through analysis that explicates a genre, addressing the detail, nuance and complexity sufficient to inform design.

## Utility of Genre for Research

### *Genre Sets Contexts to Motivate Research and Situate Findings*

Instances of genre reveal distinctions of games. These distinctions are socially constructed based on salient characteristics. As these are social constructions they represent socially meaningful distinctions of games. This meaningfulness of genre can be investigated between the over-particular and the over-universal (Aarsenault, 2009) in games.

Genre itself is just a means of establishing likeness, or a 'kind of' game. The utility of genre is in framing this likeness as tractable language, bound by composition rather than reduction. Genre is then a useful language to refer to 'kinds of' compositions. This language sets the boundary for research scope and provides a context to situate its research contribution within.

### *Genre Helps Communicate Complex Design Intersections*

Genre as is an intermediary-knowledge framing tool. If we study into a genre, with a set of genre candidate games, we can develop a systematic understanding with internal coherence of that genre. With this understanding it is possible to identify the attributes and qualities of those attributes that substantiates the genre. Such an understanding of genre would then be descriptive. Its description should be sensitized to the salient properties that were involved in its construction, and then this understanding creates a scholarly basis to communicate complex design problems, and concepts with genre language.

### *Genre Grounds, Delimits, and Orients Research*

As genre is socially constructed it is liable to change over time, between contexts and peoples, etc. Genre should not be critiqued in its capacity to be definitive, but rather, for

its capacity to describe, explicate, and understand genre in a capacity useful for design. As a socially constructed concept, it cannot be definitive, and will necessarily vary between even methodical investigations. This presents a problematic position in games studies. As each genre is socially constructed, any definitive and unlimited claim is inherently political; the claim inherently adopts an underlying epistemology to games altogether, such as in structural approaches, or assumes a particular cultural construction as true. Genre is pointed out as being problematic and contested (Klevjer 2006). This general concern of the problematic constructions of genre led us to avoid the term in previous research into walker games (Muscat et al. 2016); this genre (or genres) exist, but 'genre' as jargon is a contentious concept to invoke partially because of assumptions about how genre is constructed. As Klevjer points out, genre is "framework for linking game aesthetics to typical contexts and practices." (Klevjer 2006). If approached methodically, genres provide a useful basis for scholarly discourse. For authors who intend to work within a genre, it is paramount that how that genre is understood is explicated with both specificity and clarity. This puts forward *an understanding*, where varying interpretations may exist, and avoids risks of ambiguous or contentious engagement with that understanding. This is can be achieved through grounding and building discussion around existing works and understandings in a way that is useful for those particular works, aesthetics, and contexts of practice. Authors may identify their sensitization to the examples at hand, in the context of their genre relationship. This requires a formal genre analysis to support further work and discussion by explicating tacit understandings.

## AN APPROACH TO GENRE FOR GAME DESIGN RESEARCH

Using genre as an approach to design research involves deeper investigation into *a* genre, rather than a systematic understanding of genre as a concept. This involves tentative consideration of what a genre is, identifying supposed games in the genre as candidates for analysis, and then systematic and analytical investigation to develop detailed designerly propositions for understanding that particular genre. Each of these propositions must make clear and explicit claims, these claims must be clearly articulated, be contestable, and furthermore able to be disseminated to support scholarly ends. These propositions should offer the scholarly basis to communicate complex design intersections, as the likeness that informs the construction of a genre, offer a means to consider specifics of a genre, and facilitate ongoing scholarly discourse about that genre.

### Developing a Genre-Suitable Theoretical Framework

Existing popular descriptions of genre offer insight into what a genre is, however, they are reflexive and often uncritical positions. These are useful in orienting game design research by revealing the salient characteristics of the genre as socially perceptible. As Zagal et al. point out, "We can only categorize on the basis of what we perceive and, all things being equal, that which is more easily perceived will be of greater significance to the categorization process" (Zagal et al. 2007 p.3). These genre descriptions include those by players, critics, and other stakeholders of genre, such as the descriptions developed by Mobygames (2017). These understandings are not suitable to inform a scholarly basis for genre alone, but their salient reveal can inform the selection and development of appropriate methodology to investigation the genre. As such, this approach to genre in game design research considers the socially constructed nature of genre.

Each genre may be distinguished by different socially meaningful characteristics. A designerly investigation into that genre should investigate those salient characteristics in detail. This avoids presuming what is deemed meaningful to a game, such as narrative,

gameplay, theme, etc., and instead pursues investigating specifically into what demarcates that genre. In other words, rather than look at what makes and differentiates games in general, this approach to genre involves the systematic investigation revealing a depth about genre, and the games therein. Each genre should be investigated with a particular methodology or analytical frameworks, that is appropriate to the genre's sensitivities and salient characteristics. A party game, for example, would benefit from specific investigation into social context and social interaction, whereas, a single player role-playing game, however, would not. Existing, albeit reflexive, understandings of genre, offer a starting point to orient research direction by identifying both an artefact-grounded scope and salient characteristics to inform research methodology.

## Systematic Analysis of a Genre

Systematic analysis into a genre produces *an* understanding of what constitutes genre. This understanding should make a claim about the basis for likeness between games of the genre. The specifics of this understanding will vary based on the methodological approach taken to suit the salient characteristics of the genre. As such, it must be acknowledged the limitation of this pursuit of genre understanding; a systematic analysis will reveal *an* understanding and not a definitive claim. However, it provides a scholarly basis such that when an author invokes *an* understanding of genre, its claims, delimitations, and basis for construction are transparent and contestable. This allows other scholars to determine what exactly one means when they invoke that notion of that particular genre. While these understandings of genre should make claims suitable for a scholar to argue whether a title belongs to the genre, this is not the aim of this understanding of genre. Instead, a deeper understanding into designerly likeness and for which to expand future investigations into genre.

A systematic analysis into genre includes a theoretical framework employed, informed by the salient characteristics of genre, a proposed selection of genre candidate games, and the means in which they are analyzed. Different genres would need different theoretical and methodological approaches. A party game, for example, would likely consider social interaction and social context and investigate their interaction with the game. This might include data collection of the social frame, such as video focused on the players and their social context. Alternatively, investigation into single player RPGs might be prepared to overlook these concepts to focus on theme and narrative, turning to scripts as data points and recording video of the screen, but not the player or social frame.

Each systematic analysis should offer designerly insight. This insight should offer the degree of explicability necessary to inform design based on that proposition. This allows for game design researchers to engage with this understanding, to expand, challenge, or subvert it with a scholarly basis. This, for example, might include adapting existing game design and analysis frameworks, such as MDA (Hunicke et al. 2004) for the genre. The framework will need to be suitable to reveal details that are comparable, such as to observe instances of "likeness" that informs the genre. This allows the analysis to reveal more than the specifics of games within that genre, but how these specifics are alike, or otherwise meaningfully connected.

## Considering Genre Candidate Titles for Investigation

Without a clear understanding of what a genre is, proposing games as belonging to a genre is initially problematic. Lists of games, such as this list of 'party games' (Henry 2015), reveal games that may exist together as a genre, however, lacks the critical engagement justifying how and why these exist as a genre. Reflexive and uncritical lists

of games of that, while not of scholarly rigor, are useful in proposing candidate titles of a genre. These titles express, at less some supposed connection with, the salient characteristics of the genre under investigation. Through the investigation, a clearer understanding of what is the genre is revealed. This clearer understanding can be used to reconsider the relatedness of original candidate titles to the genre. These lists of games also offer a means to challenge the viability of that methodology; is it still believed that these games are of a genre, but there is something else that links them? The systematic analysis reveals an understanding that provides the basis to substantiate whether a title belongs in a genre or not, and how future investigations into the genre might best be conducted.

## CONCLUSION

This paper reviewed the concept of genre from the perspective of game design research. Genres are socially constructed between works 'of a kind'. Genre provides a generative language to describe related works. Genre is useful for research by having delimited scope, established context in which to situate knowledge contributions, and saliently meaningful distinguishing characteristics to orient design research. However, for a genre to be serviceable as a language and context for game design research, a scholarly position on that genre is first needed. This position should be descriptive, developed with the means suitable for each genre, and substantiated by the systematic designerly investigation, such as design analysis and explication. This position of genre must argue claims that are explicit, contestable, and defensible to support scholarly tradition. To support design research, this position must also offer the level of design and orientation suitable to support design, such as consideration of aesthetic pursuit. This positions genre as intermediary-level of design knowledge that is grounded in artefacts and situated within a socially constructed understanding. As genre is socially constructed it is liable to change over time, between contexts, and peoples. Genre should not be critiqued in its capacity to be definitive, but rather, for its capacity to describe, explicate, and understand genre in a capacity useful for design and design research. With an explicit position on the genre considered in practice, the genre can be used as language to communicate likeness, whether of values, contexts, gameplay or otherwise. This explication provides the basis for scholarly tradition in game design research, situated within the genre. This supports design research such that a genre may be expanded, challenged, or subverted with analysis and game design practice.

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## BIBLIOGRAPHY

Aarseth, Espen, Solveig Marie Smedstad, and Lise Sunnanå. 2003. "A Multi-Dimensional Typology of Games" In *Proceeding from Conference DiGRA.*

Adams, Ernest. 2009. "The Designer's Notebook: Sorting out the Genre Muddle." *Retrieved June* 15: 2014.

Apperley, Thomas H. 2006. "Genre and Game Studies: Toward a Critical Approach to Video Game Genres." *Simulation & Gaming* 37 (1): 6–23.

Arsenault, Dominic. 2009. "Video Game Genre, Evolution and Innovation." *Eludamos. Journal for Computer Game Culture* 3 (2): 149–176.

Avedon, Elliot M. 1981. "The Structural Elements of Games." *The Psychology of Social Situations. Selected Readings*, 11–17.

Bowers, John. 2012. “The Logic of Annotated Portfolios: Communicating the Value of ‘Research Through Design.’” In *Proceedings of the Designing Interactive Systems Conference*, 68–77. DIS ’12. New York, NY, USA: ACM.

Clarke, Rachel Ivy, Jin Ha Lee, and Neils Clark. 2015. “Why Video Game Genres Fail A Classificatory Analysis.” *Games and Culture*, 1555412015591900.

Clearwater, David. 2011. “What Defines Video Game Genre? Thinking about Genre Study after the Great Divide.” *Loading...* 5 (8).

Cowley, Benjamin, Ilkka Kosunen, Petri Lankoski, J. Matias Kivikangas, Simo Järvelä, Inger Ekman, Jaakko Kemppainen, and Niklas Ravaja. 2014. “Experience Assessment and Design in the Analysis of Gameplay.” *Simulation & Gaming* 45 (1): 41–69. doi:10.1177/1046878113513936.

Cross, Nigel. 2007. “From a Design Science to a Design Discipline: Understanding Designerly Ways of Knowing and Thinking.” *Design Research Now*, 41–54.

Djaouti, Damien, Julian Alvarez, and Jean-Pierre Jessel. 2011. “Classifying Serious Games: The G/P/S Model.” *Handbook of Research on Improving Learning and Motivation through Educational Games: Multidisciplinary Approaches*, 118–136.

Djaouti, Damien, Julian Alvarez, Jean-Pierre Jessel, and Pierre Molinier. 2008. “Towards a Classification of Video Games.” *International Journal of Computer Games Technology*.

Downton, Peter. 2003. *Design Research*. RMIT Publishing.

Elverdam, Christian, and Espen Aarseth. 2007. “Game Classification and Game Design Construction through Critical Analysis.” *Games and Culture* 2 (1): 3–22.

Fallman, Daniel. 2008. “The Interaction Design Research Triangle of Design Practice, Design Studies, and Design Exploration.” *Design Issues* 24 (3): 4–18.

Frayling, Christopher. 1994. “Research in Art and Design (Royal College of Art Research Papers, Vol 1, No 1, 1993/4).”

Gaver, Bill. 2002. *Designing for Homo Ludens, Still*.

Gaver, Bill, and John Bowers. 2012. “Annotated Portfolios.” *Interactions* 19 (4): 40–49.

Gaver, William. 2012. “What Should We Expect from Research Through Design?” In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 937–946. CHI ’12. New York, NY, USA: ACM.

Henry, Jasmine. 2015. “The 9 Best Party Video Games for All Ages.” *Game Rant*. July 29. https://gamerant.com/best-party-video-games-325/.

Hunicke, Robin, Marc LeBlanc, and Robert Zubek. 2004. “MDA: A Formal Approach to Game Design and Game Research.” In *Proceedings of the AAAI Workshop on Challenges in Game AI*.

Höök, Kristina, Peter Dalsgaard, Stuart Reeves, Jeffrey Bardzell, Jonas Löwgren, Erik Stolterman, and Yvonne Rogers. 2015. “Knowledge Production in Interaction Design.” In *Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems*, 2429–2432. CHI EA ’15. New York, NY, USA: ACM.

Höök, Kristina, and Jonas Löwgren. 2012. “Strong Concepts: Intermediate-Level Knowledge in Interaction Design Research.” *ACM Trans. Comput.-Hum. Interact.* 19 (3): 23:1–23:18.

Jenkins, Henry. 2004. “Game Design as Narrative Architecture.” In *First Person: New Media as Story, Performance, and Game*, by Noah Wardrip-Fruin and Pat Harrigan. MIT Press.

Juul, Jesper. 2016. “Sailing the Endless River of Games: The Case for Historical Design Patterns.” http://www.forskningsdatabasen.dk/en/catalog/2350909242.

Klevjer, Rune. 2006. “Genre Blindness.” *DiGRA Hard Core Columns*. November 15. http://www.digra.org/hc11-rune-klevjer-genre-blindness/.

Kultima, Annakaisa. 2015. “Game Design Research.” In *Proceedings of the 19th International Academic Mindtrek Conference*, 18–25. ACM.

Lee, Jin Ha, Natascha Karlova, Rachel Ivy Clarke, Katherine Thornton, and Andrew Perti. 2014. “Facet Analysis of Video Game Genres.” *iConference 2014 Proceedings*.

Lessard, Jonathan. 2014. “Game Genres and High-Level Design Pattern Formations.” In *Proceedings of the 2014 Foundations of Digital Games Conference. Florida*.

MobyGames. “Genre Definitions.” 2017. Accessed January 4. http://www.mobygames.com/glossary/genres/.

Muscat, Alexander, William Goddard, Jussi Holopainen, and Duckworth, Jonathan. 2016. “First-Person Walkers: Understanding the Walker Experience through Four Design Themes.” In *Proceedings of DiGRA-FDG 2016*. Dundee, Scotland.

Salen, Katie, and Eric Zimmerman. 2004. *Rules of Play: Game Design Fundamentals*. Cambridge, Mass.: MIT Press.

Schön, Donald A. 1983. *The Reflective Practitioner: How Professionals Think in Action*. Vol. 5126. Basic books.

———. 1995. “Knowing-in-Action: The New Scholarship Requires a New Epistemology.” *Change: The Magazine of Higher Learning* 27 (6): 27–34.

Stolterman, Erik. 2008. “The Nature of Design Practice and Implications for Interaction Design Research.” *International Journal of Design* 2 (1).

Stolterman, Erik, and Mikael Wiberg. 2010. “Concept-Driven Interaction Design Research.” *Human–Computer Interaction* 25 (2): 95–118.

Wobbrock, Jacob O., and Julie A. Kientz. 2016. “Research Contributions in Human-Computer Interaction.” *Interactions* 23 (3): 38–44.

Wolf, Mark JP. 2002. “Genre and the Video Game.” *The Medium of the Video Game*, 113–134. University of Texas Press.

Zagal, José P., Michael Mateas, Clara Fernández-Vara, Brian Hochhalter, and Nolan Lichti. 2007. “Towards an Ontological Language for Game Analysis.” *Worlds in Play: International Perspectives on Digital Games Research* 21: 21.

Zimmerman, John, Jodi Forlizzi, and Shelley Evenson. 2007. “Research through Design as a Method for Interaction Design Research in HCI.” In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 493–502. ACM.

Zimmerman, John, Erik Stolterman, and Jodi Forlizzi. 2010. “An Analysis and Critique of Research Through Design: Towards a Formalization of a Research Approach.” In *Proceedings of the 8th ACM Conference on Designing Interactive Systems*, 310–319. DIS ’10. New York, NY, USA: ACM.