**Title:**

Gaming the Scholarly Edition: Opening the Private Arena of Academic Scholarly Editing to Public Apprenticeship via Digital Game Paradigms

**Authors:**

Sonja Sapach (Acadia), Jon Saklofske (Acadia) and the INKE Modelling and Prototyping Team

**Abstract:**

This paper addresses the issue of public participation in scholarly editing practices via the INKE project "Gaming the Edition", which involves modelling a game-paradigm based, collaborative, digital environment designed to move neophyte editors through a process of 'leveling up' or advancing editorial expertise.  The application of a collaborative gaming paradigm to scholarly editing forces us to reexamine the public/private dichotomy.  As a field traditionally confined to the private spaces of institutions and the exclusive environments of professional knowledge and expertise, scholarly editing theoretically resists opening up to public participation.  This paper explores three key questions: First, what form can true 'public' participation take in an academic/scholarly practice which is conventionally associated with exclusive power structures, and which takes place in private arenas that are gated by strict financial and educational boundaries?  Second, does the application of gaming paradigms to the practice of scholarly editing (for the purposes of crowd-sourcing specific types of editorial work and mentoring novice editorial apprentices)  preserve or overcome traditional forms of control?  Third, how can we encourage the development of a public editorial  space in a digital environment focused primarily on skill development and intellectual property creation in a post-secondary context?  In order to answer these questions, we will model a digital editing environment that makes use of game-based affordances.  This model will function as a performative argument that addresses the above concerns and essentially argues against the divisive boundaries established through the intellectual and economic privatization of post-secondary education environments.

**Gaming the Scholarly Edition:**

**Opening the Private Arena of Academic Scholarly Editing to Public Apprenticeship via**

**Digital Game Paradigms**

Sonja Sapach, Jon Saklofske and the INKE Modelling and Prototyping Team

**Introduction:**

The Modelling and Prototyping team of INKE (Implementing New Knowledge Environments), a seven-year Major Collaborative Research Initiative (MCRI) funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) is currently working on a number of prototype software ideas relating to the ways that scholarly editions are impacted by networked digital technology . In addition, drawing from the premise that both video games and critical editions can function as rhetorical sites of argumentation, we have been working to develop a model for digital, collaborative scholarly editing that draws from existing digital game paradigms, practices and processes. We define a model as an "exploratory device" (McCarty) that can articulate beliefs or ideologies which are often invisible and conducive to standardization. (Bowker and Star 2) Thus our digital modelling projects--including "Gaming the Edition"-- are intended to not only explore the potential ways that networked computing environments can and should impact humanities-related critical thought and scholarly practice, but also to expose, question and potentially revise existing processes related to critical scholarly traditions.

**The Situation:**

Scholarly editing work is is a precise and highly theorized formal practice. The MLA Guidelines for Editors of Scholarly Editions (last revised in June 2011) document offers a good introduction

to the complexity of editorial theory and practice, along with an annotated bibliography of key works in the theory of textual editing. Overall, the purpose of scholarly editions of primary textual material in the humanities is to present a "reliable text," and these editions can include explanatory annotations, the history of a text, the rationale for that particular edition's construction or representation of the text, notes on alterations and variations, transcriptions and collations, and a copy-text, a base-text or neither (and emendations to that copy-text), to name just a few. The theoretical justifications that determine the shape and purpose of specific edition projects are numerous and varied, and arguments surrounding these motivations have been extended and reconsidered as scholarly editions have migrated into digital environments. No wonder, then, given that scholarly editing is such an arduous and involved process, that it is also a fairly exclusive one as well. Traditionally, the process of edition creation is limited to a few people, but the product (the edition itself) becomes publically available (usually at a significantly higher cost than mass market editions). Membership in the creation process is limited and not made public due to the fact that the credentials and reputation of an editorial team directly influence the reputation of the edition. While this model is efficient and reputable, digital opportunities have opened up the possibility of a greater level of public participation in both the process and product. The fear, though, is that a digitally enabled democratization of these processes will result in an erosion of scholarly integrity, accuracy and reputability, and such views continue to justify exclusive and specialized editorial practices.

**The Question:**

A strong motivation behind the development of the Gaming the Edition model is a reaction against traditional notions of the often private and fundamentally restrictive barriers to academic participation and access. What form can true 'public' participation take in an academic/scholarly practice which is conventionally associated with exclusive power structures, and which takes

place in private arenas that are gated by strict financial and educational boundaries?[1]  How can we encourage the development of a public arena for scholarly practice which is focused primarily on skill development and intellectual property creation in a post-secondary context?  Are we able to maintain academic rigor and vigor while allowing public membership and participation in the creation and access of scholarly editions?  Before we can address the three key issues at the heart of these questions - environment, process, and product -  a more in depth description of the Gaming the Edition model itself is called for.  In addressing these questions, the aim is to use the Gaming the Edition model of a scholarly editing environment as an argument against traditional conceptions of 'public' and 'private' in academic work.

**Modelling a Response:**

In modelling Gaming the Edition, we imagine a digital environment that allows 'players' to 'level-up' or advance through stages of editorial expertise.  Not only are players initiated into and mentored through a digitally-framed world of scholarly editing, they also become a part of a process that has 'real world' consequences, transferrable accomplishments and a public presence.  The skills that players learn as they contribute, and the achievements they earn as they progress, are quantified and summarized by the software, and such "badges" can be cited on professional resumes. Most importantly, though,the scholarly editions that player-apprentices contribute to are actual academic works - scholarly editions managed by academically-situated editorial teams, contributed to by a broader public participation, and shared openly with the

---

[1] While some would argue that MOOCs are the answer to this dilemma, the democratization of educational spaces will not take place in depersonalized virtual environments which represent the industrialization of higher education (and which are thinly disguised "cash grabs" for universities which already devalue the undergraduate education experience).  The "Gaming the Edition" model offers an alternative space in which training and contribution to publicly available documents are one and the same, in which credentials can be earned through engaged process within an active, practicing knowledge community, not through abstracted and abstracting exercises.   In the Gaming the Edition model, credentials are neither purchased or achieved through labour that is distinguished from public work and contribution.  Training, work and contribution to public cultural capital are one and the same here.

public.

The Gaming the Edition model describes a process of social, collaborative, digital scholarly editing that utilizes game-based affordances to create an environment conducive to what Eric Salen and Katie Zimmerman call '*meaningful play'*.  Salen and Zimmerman define *meaningful play* in two ways:

> 1. "*Meaningful play* in a game emerges from the relationship between player action and system outcome; it is the process by which a player takes action within the designed system of a game and the system responds to the action. The *meaning* of an action in a game resides in the relationship between action and outcome." (34)
> 2. "*Meaningful play* occurs when the relationships between actions and outcomes in a game are both *discernable* and *integrated* into the larger context of the game." (34)

With Gaming the Edition, we take these definitions one step further.  Not only do the actions of the player have meaning within the gamed edition environment itself, but they are also designed to extend beyond that environment, into the larger world context of professional editorial practice beyond the particular edition.  Thus the player is motivated in three ways: through a localised challenge/achievement interface, through the awareness that they are contributing to and will be credited within an actual scholarly edition project, and through the promise of growing professional editorial ability and inclusion within a broader scholarly community of practice.

In the spirit of a recent trend in video game design to replace printed game manuals with a training  tutorial and 'levelling up' process that is part of (not distinct from) the narrative of the game, this model of scholarly editing involves participants--right from the beginning of their

involvement--in actual editing work on an actual edition project.  By employing a system of in-game task completion, where the successful completion of progressively more challenging tasks rewards the player with experience points (XP), and undergoing a process of 'levelling up', this model utilizes common game-based affordances to 'apprentice' players into the world of scholarly editing.  Drawing from guild models in various MMO's (Massively Multiplayer Online games), Gaming the Edition players simultaneously undergo an apprenticeship-style process where they learn from more experienced player-editors through online social interactions, and the completion of specialized tasks, created by senior players.  In "leveling up," users accomplish several goals: 1) they gain access to more features and contribution potential; 2) they gain authority among the team, represented by an associated tier title; 3) they have more of their work represented in the environment's reporting structures; and 4) they become more adept at editing procedures while also increasing their metacritical awareness of editorial theory and praxis in an environment that encourages creativity, play and problem-solving.

There are three tiers of expertise within the model; Coordinating Editors, Managing Editors, and Player Editors (See Figure 1).

Co-ordinating editors
(Larger frames of editorial possibility)

Managing editors
(Specific editing projects)

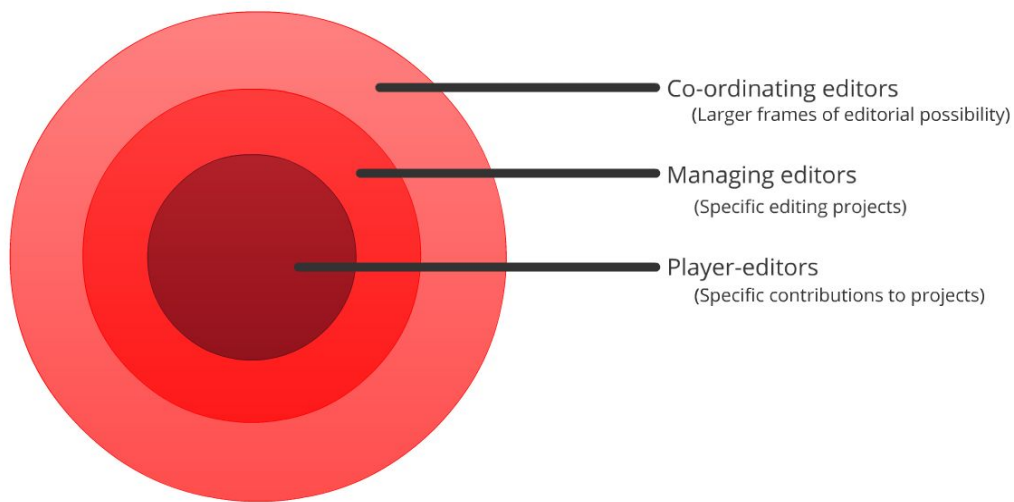Player-editors
(Specific contributions to projects)

Figure 1: Expanding layers of editorial opportunity in a digital editing environment

The Coordinating Editors are the highest 'ranked' or tiered editors. They have reached something akin to "end game status", meaning that they have reached the highest possible 'level'. They are responsible for establishing large editing frameworks within which a variety of distinct 'smaller' projects are created. Like game designers, the Coordinating Editors are responsible for defining the general rule-sets, creating specific project templates (if desired) and working with the Managing Editors within their frame(s) to ensure that particular editions embody and validate the 'spirit' of the specific frame.

Managing Editors are primarily responsible for the specific/distinct editing environments created within the larger frames. By opting to create a new project within an existing framework, the Managing Editors (limited only by the Coordinating Editor's rule-set and theoretical guidelines) create an editing environment. They define the rule-set specific to their project and can opt to

use a pre-existing template or customize their own (to be approved by the Coordinating Editor of the frame). We are making an assumption here that a number of Managing Editors will work together to share duties and effectively work as co-leaders on these various projects. Managing Editors are responsible for the overall monitoring of contributions made to their project, working to ensure the validity and quality of the scholarly edition. They are also responsible for working with the Player Editors in their project to promote/provide a supportive, collaborative environment and for organizing and acting as  'mentors' to novice Player Editors.

Participation in Gaming the Edition requires that all newly registered players start at 'level one.' They are assigned to an edition and are directed to complete a series of introductory tasks in order to learn the basic UI, navigation within the various edition frameworks, and the fundamental skills required to begin actively collaborating and contributing. Although these tasks are basic (and include activities like transcribing, versioning comparison, metadata creation, etc.) and are intended as a gateway into active contribution, they still involve actual contributions to an in-progress edition - they add to the on-going 'narration' of an edition's creation.  Over time, completion of a certain quantity of these basic tasks (that are reviewed for quality by senior Player Editors) results in the acquisition of an achievement 'badge' that allows the Player Editor greater access to a broader variety of editing tasks and a greater number of editing projects to contribute to, providing them with the ability to learn, to earn achievements and to 'level' via more significant contributions to scholarly editions. In this way, the player's actions are not only meaningful in the context of the game environment, but are also extended into actual and consequential editorial practice.  Player Editors will have access, as mentioned, to various features based on how far they have advanced or "levelled" their profile. While they will always have access to the various social and reference tools, other aspects of the project are opened up as they gain authority, become more adept at editing, and increase their contributing potential.

The Managing Editors must ensure that the Player Editors are getting appropriate recognition for their contributions as Player Editors work their way through an apprenticeship-style learning process.

The Gaming the Edition model allows for meaningful play to occur for all three tiers. Coordinating Editors and Managing Editors create templates that allows for the creation of scholarly editions to which all three tiers contribute. They also directly affect the progress of novice Player Editors by mentoring, and designing apprentice-tasks that both directly contribute to the scholarly edition and provide valuable skills training. The overall goal of the model is to allow for open, public participation in the process of scholarly edition creation, while maintaining academic rigor. Before we can delve deeper into how this is accomplished, it is important to first discuss what we mean by 'open, public participation.'

**Blending Public and Private (Maintaining private order within the complexity of public collaboration)**

Conventionally, public and private are opposite categories and are often used dichotomously. The two parts of a dichotomy must be both mutually exclusive and jointly exhaustive - all things can be categorized as either public or private, and can never belong to both categories at the same time. Jeff Weintraub helps to explain the 'traditional' distinction by pointing out two associative features related to this dichotomy:

>1) What is hidden or withdrawn versus what is open, revealed, or accessible.

>2) What is individual, or only pertains to an individual, versus what is collective, or affects the interests of a collectivity of individuals. (5)

Thus "private" is often synonymous with something hidden and individualistic, while "public" is associated with things that are visible and collectively available. In spite of this

apparent reinforcement of mutually exclusive and jointly exhaustive categories, Weintraub recognizes that "there are a number of ways in which each of these underlying criteria can be conceived, and a number of ways in which they can be combined"  However, rather than positing this diversity as something that undoes the reductively dichotomous perception of public/private, Weintraub acknowledges that this variety produces "the various *concrete* versions of the public/private distinction" (6, our emphasis).

A specific concretization of the above dichotomy involves the ways in which people talk about property.  Public property is understood to be that which is owned by the governing body of the state or which is collectively owned by a group of 'non-government' individuals.  Private property is, on the other hand, owned by individual (or individually oriented) 'non-government' individuals.  Property must be either public or private, there is no 'third' category, highlighting the fact that the public/private dichotomy is jointly exhaustive (at least in this example).  Also, property is commonly considered to be only private, or only public - a single piece of land cannot be both, demonstrating the above idea of mutual exclusivity.    However, this conceptual idea can be easily disrupted. Consider what happened during the Occupy movement in 2011/2012.  Protesters literally occupied 'public' spaces like parks - spaces managed by the government but intended for the collective use of a public citizenry.  In theory, the fact that the property was 'public', and being used by a collective of publicly supported people, should have allowed the Occupy protesters to stay as long as necessary.  However, for a plethora of reasons, cities, one-by-one, began evicting the protesters thus challenging conventional perceptions of ''public' property.  To maintain order and to discourage disruptions that might further undermine additional categories and paradigms at the heart of implicit

social contracts, governing bodies chose to impose seemingly 'private' rules on 'public'

property.  In this way, the conventional, mutually exclusive dichotomy of the public/private

category was broken by blurring principles of public and private property ownership and

use.[2]

The conventional separation between what is considered 'public' and what is considered

'private',  while apparently simple on a conceptual level, is quite complicated in practice and

nearly impossible to reduce in any universally agreeable way.   Susan Gal points out that:

> A semiotic approach to public and private suggests that, contrary to customary
>
> scholarly parlance and commonsense usage, "public" and "private" are not
>
> particular places, domains, spheres of activity, or even types of interaction. Even
>
> less are they distinctive institutions or practices. Public and private are
>
> co-constitutive cultural categories, as many have pointed out. But they are also,
>
> and equally importantly, indexical signs that are always relative: dependent for
>
> part of their referential meaning on the interactional context in which they are
>
> used.(80)

As "co-constitutive cultural categories", and relative "indexical signs", these terms seem to have

more of a dialectical relationship than a binary one.  Due to this complicated relationship and

contextual relativity, it is impractical and limiting to talk about public/private as an exclusive

binary.  A parallel example relates to the concept of gender.  'Traditional' ideas surrounding

gender present a masculine/feminine binary, where a person is classified as either one or the

other - often related to specific value judgments and cultural interpretations.  However, the

concept of gender is not nearly as simplistic or easy to categorize as that.  Gender has been

---

[2] More cynically, though, this apparent blurring could also be understood as the moment in which the system was exposed as conventional and conditional rather than natural or universal, and the moment when the notion of public property was revealed to be a idealized falsehood in a system that has increasingly embraced privatization models.

broadly (and often erroneously) used to refer to biological sex, gender identity, and/or social roles.  A strictly binary use of gender labels is fading in favor of more gender neutral language, and the recognition of the relativity of gender constructions, expectations and categories is gaining a broader acceptance, the traditional uses of the strictly dichotomous, 'either-or', terminology, and understanding, has given way to a more flexible, varied, and subjective vocabulary and set of ideas.  The Gaming the Edition model argues that in a similar (though contextually different) way, the traditional ideas, vocabulary and reductive understanding surrounding the concepts of public and private need to be rethought and re-defined.

To bring this discussion back to an environment that relates more clearly to the focus on scholarly work and practice at the heart of the Gaming the Edition model (though the metaphorical association between edition environments and idealized spaces is actually quite helpful), how are the ideas of public and private applied in relation to an open access academic journal?  The fundamental idea is that academic research (which is often funded by public money) is made available, for free, to whomever wishes to use it. This seems to fall under the 'public' side of the dichotomy and the 'collective' and 'visible' forms of imagery.  However, no matter how noble or open an author's intentions may be, there is still some 'private', individual interest at play.  Authors may not make a financial profit from the article's publication, but they are still receiving personal exposure and credit for their work which is distributed widely and which will hopefully be cited by future authors.  This example blurs the distinctions associated with the traditional dichotomy of public and private, and raises the possibility that the two are not mutually exclusive, and that there is always the potential for private/personal gain via public participation (an idea that drives many philanthropic and civil servant urges to be sure).

.

In an effort to maximise potential benefits at individual, communal and cultural levels, the Gaming the Edition model combines the categories of public and private, challenging traditional academic perceptions and boundaries that reinforce distinction and exclusion.  While the primary goal of this model has been to open up the practice of scholarly editing to public participation, we have had to incorporate specific 'private' considerations in order to ensure that academic rigor and validity is maintained.   Gaming the Edition argues for the blending of 'public' participation, 'private' systemization, and 'public' open access to the process and product of digital scholarly editions (traditionally 'private' intellectual property').  Does this offer enough of an alternative to be considered as an argument against traditionally exclusive academic practices and communities?

**On Space (Environment)**

Virtual worlds, digital environments and  game spaces remind us that the concept of space is necessary to consider when discussing the nature of public and private access to academic/scholarly practices.  Consider the university, the traditional, physical hub of scholarly activity.  Acadia University, for example, is a small, primarily undergraduate, liberal arts institution comprised of 40 individual buildings spread out over an area of approximately 250 acres (100 hectares) of land.  Housed within these various buildings are many offices and classrooms where students and professors collectively work to learn from and advance academic practices. While the university is considered to be a public institution (publicly funded that is), it is also an autonomous unit, able to determine things like tuition, admission, and methods of governance. While non-members of the university are typically free to walk the grounds, attend public lectures, peruse the library, and generally explore many of the buildings, they are also prevented (for a variety of reasons) from contributing to the academic/scholarly process in any significant way.  In order to participate, individuals must be accepted to the university, pay the appropriate

tuition and fees, and maintain an acceptable level of performance and output.  So, while considered to be a public institution, the academic process occurs on private, university-owned land, in private, university-owned buildings, governed 'privately' by the university.  Some activities that occur within the publically accessible physical space of the university (many of which define the overall purpose of the university)  are private and exclusive.  Ironically, then, much of the supposed "openness" of the university system is limited to its current and prospective membership.

In contrast to the physical location of the university, digital spaces that serve the same function are less limited by location, though access to them can certainly still be restricted. Unlike the above described physical space of the university, space is perceived and used differently in the Gaming the Edition model, where we are working from the point of view that anyone who wishes to register to participate is freely able to do so, regardless of previous experience, educational background, or financial status.  The only requirement to register is the ability to do so - having a computer connected to the internet that is able to support the software, as well as the skill to navigate the site and actively register.  Membership - access to the traditionally private arena of scholarly editing, is fundamentally open to all.  This model redefines the space in which scholarly editing traditionally occurs as a public one.  We are, in essence, 'rezoning' the environment of academic/scholarly edition creation.

Through our 'rezoning' we seek to eliminate or, at the very least, minimize the barriers to academic participation created by the university environment.  We are not arguing against the university as an institution, but we are arguing for an alternative way to enter into academic processes (specifically scholarly editing) that transcends the traditionally 'private' nature of the university space.  The first and easiest border to transcend is the financial one.  There is no

tuition or membership fee involved with registering and advancing in the Gaming the Edition environment.  Eliminating the need to take out student loans, maximize credit cards, and ask your parents for money tears down the sometimes daunting financial wall typically associated with 'private' university spaces.  Additionally, by allowing open registration for all who wish to sign up, we are removing traditional admission requirements and application processes.  To register for Gaming the Edition, players to not have to pass any tests,  submit any transcripts or reference letters, or survive any interviews.  Instead, their ability to contribute and participate is determined through the process of edition creation itself;  "the proof of the pudding is in the eating" so to speak.

As a digital, 'game' space, Gaming the Edition also removes the physical and temporal boundaries associated with attending a university.  'Players' do not have to relocate or commute to participate and learn.  Similarly, as an online space, editors have 24 hour access.  Although the social aspect can be affected by real world time (different time zones, scheduled online chats, etc.) and there are temporal deadlines associated with player tasks or quests, the time barriers associated with participation in institutionalized education are, for the most part, eliminated.  Within a certain overall structure for edition deadlines, apprentices can work at their own pace, depending on the nature of the specific edition being worked on.  Ultimately, we are 'dematerializing' the physical space and eliminating temporal constraints associated with academic participation.  While collaboration and access to training is traditionally linked to the physical space of the university, Gaming the Edition allows for a similar process to occur in a flexible and adaptive 'public' game-based space.

**The Process**

As discussed above, an integral part of the Gaming the Edition model is the training that players

will go through in order to gain higher status and greater influence on new and existing projects. While initial registration and participation is open to anyone who desires ('public') access, advancement and the ability to contribute significantly to scholarly editions depends on the ability to gain XP and work as an apprentice in order to learn from more experienced and skilled players.  We are envisioning apprenticeships, open to everyone, that can lead to significant contributions to collaborative digital scholarly editions. Inherent to such openness is the idea that not everyone will have an academic title, not everyone will have previously published work, and not everyone will be a part of a SSHRC-funded team. How, then, are we to trust and respect each contributor in such a varied arena? This is where the levelling and apprenticeships become critical. The idea is that all members of a contributing team will have gone through the same 'levelling' process during their apprenticeships. Everyone will have to overcome the same obstacles. A tenured professor and a high school student will both start in the same place, with the same advancement opportunities based solely on their performance and ability to accomplish tasks successfully.   If someone is working on a certain edition with a team of ten others, they can take comfort in knowing that they all have learned how to use the interface, that they all have gained an understanding of the basic approaches to scholarly editing, and that they all have confirmed their commitment to the project and earned a place on the team by contributing enough time and effort to the completion of introductory tasks.

The levelling and apprenticeship aspects of Gaming the Edition exist not only to educate, but also to monitor and validate the creation of the product.  In order to maintain academic rigor, and the right to call the final product a 'scholarly edition', a high level of ('private') control is ultimately required.  As a player-editor works their way up through the levels, they are earning XP and achievements based on actual demonstrations of valid, 'real world' skills.  The XP and 'badges' that a player-editor can earn are similar, though not identical, to those found in many gaming

paradigms. Consider a game like World of Warcraft (WoW) where the ability to earn XP is actually tied to the difficulty of the task at hand. For the first 5-10 levels, players can repetitively perform fairly simple tasks (killing boars, for example) in order to earn XP. However, once a certain level is reached, killing boars no longer yields XP. Yes, the player still has the option to perform the task, but in order to advance any further, they must complete increasingly difficult tasks. By its design, WoW forces players who wish to access higher level areas, and participate in more challenging (and more rewarding) tasks to prove their worth. Gaming the Edition works in a very similar way, however, in WoW, the tasks are designed by the game design team and while affecting the experience of the player (and those they work with), levelling in WoW does not actually change the game environment beyond the parameters set by the designers. In Gaming the Edition, player-editors act more like 'modders' than 'players', in that their actions have a permanent effect on the digital scholarly edition or 'game space'. Also, the tasks that allow for players to earn XP and achievements are designed and monitored by senior Player Editors, as well as Managing and Coordinating Editors, continually evolving to meet the needs of the various editions-in-progress. Instead of a design team that exists externally to the game and which edits the environment based on the wants/needs of the players (such as in WoW), Gaming the Edition involves all three tiers of editors in the modification of the edition environments (digital scholarly editions) in a dynamic feedback loop. While all layers of modification are not available to all editorial levels, all levels have a chance to affect the 'world' of the edition.

Achievements work in a similar way as well. They are not directly tied to levelling and can be earned both while in the process of levelling and once 'end-game' status has been reached. They are designed, by managing and coordinating editors, to be tangible, 'real world' indications of skills and accomplishments. Achievement 'badges' are designed to be displayed 'publicly' on

resumes and personal web pages, allowing all three tiers of editors to highlight their contributions

to scholarly editions created through the Gaming the Edition model.  While this is all well and

good on the surface, the issues of of control and rigor still need to be addressed.  Achievements,

while designed by an individual Managing or Coordinating Editor, must be collaboratively

reviewed and approved by other Coordinating Editors in order to govern their use, distribution,

and validity. While some of these achievements/badges may be 'permanent' ones (e.g.

'promotion to managing editor'), due to the dynamic nature of the edition spaces many of them

may be framework or edition specific and/or only achievable by a select number of members

(e.g. active contributor to edition 'X' from creation to completion).  Achievements need to be

designed to not only promote skills and accomplishments in the 'real world', but also within and

laterally across the  broader Gaming the Edition community itself - these achievements can be

viewed by fellow editors which can help to encourage trust, respect, teamwork, and fellowship

(through mutual recognition of a completed task).

The apprenticeship or 'guild' model is also valuable for maintaining rigor and control within this

model.  There is a built in social aspect that involves things like live chat, debates, comments

and annotations which allow and encourage members of all three tiers to interact and learn from

one another.  During levelling, player editors are encouraged to ask questions, join discussions,

and work alongside senior editors, allowing them to learn not only through the completion of

tasks, but through direct interaction with more experienced others.  What occurs during these

interactions occurs in the 'private' space of the edition-in-progress.  The comments, chat logs,

etc., are not available for 'public' viewing.  Only active members of a specific edition, those

accepted by the 'governing' Managing Editors, are able to view, comment on, and interact within

that edition space.  Managing and Coordinating Editors are able to make themselves available for

interactions with low-level player-editors who have not yet 'unlocked' the ability to view various

editions, however this is voluntary, requiring the willingness of the higher-level editor to answer questions and address problems not directly related to their specific scholarly edition(s). Although this social apprenticeship is not as formalized as the acquisition of XP or achievements, it still encourages rigor and validity through interactions with experienced others. Not only does it foster a sense of community and belonging, but it also allows for managing and coordinating editors to act as 'filters', with the ability to 'ban' behaviour that is contrary to the specific edition framework, or Gaming the Edition as a whole.  Of course, as with achievements, the decision to ban an individual must be collaboratively agreed upon by other coordinating editors in order to avoid potentially unfair treatment or bias.

Ultimately, the Gaming the Edition model argues that in order to maintain academic rigor, the process of scholarly edition creation must be subject to something akin to a 'private' level of internal government.  All participants earn their level and tier through demonstrations of competency and the ability to cooperate and learn from others - earning XP and achievements through task completion and apprenticeship under higher ranked others. This 'private' form of control however, does have some notions of 'public' blended in.  There are no limitations to the number of Coordinating Editors or Managing Editors that can exist at any one time.  As long as a player-editor has earned their 'rank' through the above described process of levelling and apprenticeship, they have the same ability as any other member who has earned the same rank. Contrast this with a university where there are limited numbers of faculty and students.  In the 'real world' every student who obtains an undergraduate degree is not instantly accepted into a master's program and every successful PhD candidate is not automatically allowed to become a professor.  In Gaming the Edition however, every player-editor has the opportunity to become a managing-editor, and every managing-editor has the opportunity to become a coordinating-editor, as long as they satisfy the levelling/skill requirements for each tier.  Also,

every player has the opportunity to contribute to an edition environment as long as they satisfy the particular level/apprentice requirements for that type of access.  Compare this once more to universities - just because a professor has earned the right to teach classes at Acadia does not automatically give them the right to walk into another university and start teaching classes.  This model argues that the maintenance of academic rigor does require a form of 'private' control, but that it can be blended with a more 'public' style of collaboration and participation.

**The Product**

The idea of open access to academic intellectual property is growing in popularity as the internet is making the requirement to print, and distribute physical, hard-copy journals, monographs and editions increasingly obsolete.  Currently (though this is changing), open, public access to much of the work produced in the university environment is quite limited, even though most academics who contribute to these works often receive very little (if any) monetary compensation. Reinforcing such a model is the "publish or perish" mentality in academia where postgraduate students and professors are encouraged/required to have their work published in peer-reviewed, 'top-tier' journals or through highly reputable presses in order to facilitate job opportunities, security, promotion and--in places where it still exists-- tenure.   At the same time, such representative participation in and contribution to a broader knowledge community earns prestige/ranking for the institution.  In the case of scholarly journals, in order to access the full versions of published articles, individuals and institutions pay subscription fees to various journals and/or databases.  The actual cost of these subscriptions varies widely, depending both on the field and the prestige of the journal itself.  According to the 2013 Periodical Price Survey, there are fifteen academic disciplines where the yearly average journal subscription cost is over $1,000, with geography, the lowest of the group, at $1,401 and chemistry, the highest, at $4,450. The same survey looked at the average annual price of online journals, with chemistry still

topping the chart at $3,906, social sciences falling mid-pack at $818, and music with the lowest average at $278.  An argument could be made in favor of these prices if the actual producers of the articles, the academics, were being paid for their work by the journals themselves. This however, is not the case.

This model of high-priced publication stems from a need that existed before the digitization of information.  In order for scholarly work to be widely distributed, work was submitted to journals, who, after rigorous review and selection, would typeset, print, and distribute the articles to a wider audience.  Subscription fees were required In order to pay for all of the work that went into producing these journals.  This model, as effective as it was historically at advancing disciplinary progress, now seems to be maintained more out of habit and tradition than necessity.  Vast amounts of information are available online, and experience demonstrates that if there is a fee related to accessing certain online information, rather than paying the fee, the user will find alternative sources of free, easily accessible information instead.

The Gaming the Edition model argues for open, public access to scholarly intellectual 'property'. Peter Suber defines open access material as "digital, online, free of charge, and free of most copyright and licensing restrictions."  There should exist no barriers to access for readers or users of the information, financial or otherwise.  Suber states that open access is:

> compatible with copyright, peer review, revenue (even profit), print, preservation, prestige, quality, career-advancement, indexing, and other features and supportive services associated with conventional scholarly literature.  The primary difference is that the bills are not paid by readers and hence do not function as access barriers. (n.pag)

Gaming the Edition tends towards this type of open-access model: players volunteer their time to the production of an online, free of-charge scholarly edition and are rewarded in non-financial ways . It is important, however, to highlight Suber's suggestion that while open access models remove price barriers, they retain a flexibility regarding permission barriers so that authors are ensured of the integrity and proper acknowledgement of their work. Open access does not advocate the 'theft' of nameless ideas, but instead supports the sharing and advancement of knowledge. The key thing to take from Suber is that open access involves removing the barriers of access for those who wish to read and use scholarly work. Is this akin to making the work more public and less private? If degrees of privacy can be directly related to the imposition of access barriers, then open access tends towards a public model, in which such barriers are removed.

There is real academic value to allowing open access to the digital scholarly editions that are created through the Gaming the Edition model. By allowing anyone to have access, not just to view but also to reuse the 'intellectual property' within these editions, the information can be explored in interesting new ways thus allowing for an increase in related research and the creation of new scholarly material. This type of access is particularly helpful for low-level Player-editors within Gaming the Edition itself, as it allows them to freely view, and learn from, completed editions. For those 'non-academic' participants, who may not have access to university libraries and the associated online journal access, the ability to read and use digital scholarly editions is invaluable - or at least as valuable as the price of a peer-reviewed journal subscription.

The completed scholarly editions will be openly accessible through the Gaming the Edition site itself. Both registered members and non-members will have the ability to read and use them

freely.  In addition to the benefits mentioned above, this will encourage visitorship to the Gaming

the Edition environment, potentially increasing registration and participation which, in turn, may

increase the number of scholarly editions that are ultimately created and completed.  This

feedback loop of product creation and access is probably the most significant benefit to open

access in general - greater access to scholarly material drives an increase in academic

exploration and creation.

**Anticipating Questions**

Wikipedia and/or Google Docs are NOT the same thing!

Wikipedia and Gaming the Edition are fundamentally different: Wikipedia is a non-academic

environment for the objective reproduction and reduction of facts, whereas Gaming the Edition is

a model for academic-level scholarly and critical edition building.  That said, It would be foolish

not to acknowledge the ways in which the Wikipedia model has impacted the design of Gaming

the Edition.  It could be argued that our current project simply involves exporting Wikipedia

structures and principles to the arena of scholarly editions.  Wikipedia's field-tested creation of a

digital space that draws from open access models and which anyone is welcome to contribute

to is certainly replicated here.  Additionally, the issues that have driven dialogue around

Wikipedia's twelve-year collaborative writing experiment relating to contribution quality and

accuracy, as well as the potential for vandalism or misuse are all concerns that Gaming the

Edition also has to contend with.  However, it is the way that Gaming the Edition pre-emptively

addresses those questions that distinguishes it from the Wikipedia model.

Unlike the way that Wikipedia's initial openness has been incrementally reduced and--for lack of

a better word--increasingly policed as its community continues to mature, the Gaming the

Edition environment features pre-defined projects that are driven by specific goals and editorial

theories, taking its inspiration from existing digital game-based paradigms, such as the combination of tutorial missions with consequential participation in the narrative and the game world, as well as the WoW apprenticeship model.  This fundamentally restricts the player while not restricting access to play.  Tasks based on editing work that needs to be done for that particular edition are created by Managing Editors and Coordinating Editors, and are pre-defined, parallelling game missions or quests. If Player Editors choose to accept a particular editing task, they implicitly agree to the parameters and "rules" of the edition, similar to the way that players accept the subject positions that games offer to them.  The apprenticeship and mentorship structure built into the model offers a chance for novice players to work their way through to editorial mastery while encouraging high-level work and a constant incentive for improvement and advancement.  The public access to Gaming the Edition is thus balanced by a strict management structure and conditional rules, like any MMO.  In contrast, Wikipedia editors can offer challenges or requests to other editors (https://en.wikipedia.org/wiki/Wikipedia:Reward_board), but these are individually generated and resemble an outsourcing of labour more than the gathering of a collaborative team.  What Gaming the Edition does not inherit from either digital games or Wikipedia is a competitive style of play.  Collaboration and cooperation are key, with individual (private) interests being harnessed for public (collective) project results.

Vandalism is not a significant problem within the Gaming the Edition model, as all tasks are peer reviewed and all users are accountable for their actions.  The structure of the environment encourages productive citizenship, given the presence of achievements and badges (and the kinds of motivating peer pressure that go along with communal participation towards a common goal, as inspired by guilds and apprenticeship structures in WoW).  In contrast, Wikipedia features a more informal and inconsequential system of interpersonal rewards.  These "barn

star" rewards have been used in Wikipedia since 2003

(https://en.wikipedia.org/wiki/Wikipedia:Barnstar) but do not retain any meaning ar recognition

outside of the Wikipedia environment.  A retrofitting project to explore the potential for linking

badges and achievements to Wikipedia has been proposed, but has not made any significant

progress since September 2012.  (http://en.wikipedia.org/wiki/Wikipedia:BADGE)  What Gaming

the Edition's achevements and badges do is promise the player that their private, individualized

activity within the edition environment will have public consequences, public exposure and

impact outside the digital environment.

Another high profile collaborative editing environment which could conceivably be used for

scholarly edition creation id Google Docs.  While its interface anticipates some ideas within the

Gaming the Edition model in that it involves shared documents that can be simultaneously edited

by multiple contributors, a chat window, commentary potential, and public access options, it is

ultimately a tool that falls short of the motivational game-based structures, the specific

organizational and promotional scaffold, and the infrastructure for achievement, recognition and

advancement featured in the INKE model.  Crucially, the Google Docs apparatus seems to

assume a pre-existing relationship between contributors (implied through the invitation process

and/or the sharing of the URL in the case of a public document), whereas Gaming the Edition

inherently  facilitates collaboration between distant strangers, building a community around an

opportunity, rather than inviting an existing community to create an opportunity.

Con'trolling' the trolls - how do we maintain rigor?

*Free and open access not only to the product, but to the process?  Anarchy is inevitable!*

Many of the issues associated with such a concern have been addressed above.  While it is true

that registration is completely open to anyone with the ability and desire to do so, this does not

automatically give everyone the power to disrupt the system.  It is important to highlight, once again, that all Player Editors will start at level one and must earn the ability and authority to significantly alter the edition spaces.  While they will contribute to the creation of an actual edition even at level one, at such a low level, they will be monitored by more experienced editors minimizing the risk of any significant damage/interference.  As well, all editing tasks are peer reviewed, ensuring that irresponsible activity does not become part of the edition, and is neither rewarded nor allowed to continue.

What about that 'evil' Player Editor who performs the required tasks, participates in the apprenticeship and successfully infiltrates the edition space?  While this is entirely possible, as mentioned above, important administrative tasks such as achievement creation or the 'banning' of fellow editors, must be collaboratively agreed upon by other Coordinating and Managing editors.  As far as the destruction or ruination of a specific edition goes, it is the responsibility of each edition's creator(s) to manage their editing environment effectively and monitor the activities of contributing editors (hence the name "Managing Editor").  The Gaming the Edition environment will automatically and regularly back up and Managing Editors will be able to 'roll back' to previous versions if necessary.  Granted, if there is a 'rogue gang of evil editors', dead-set on destroying the work of others, then we may have to abandon all hope - as this is extremely unlikely however, there is no need to address this further.  Overall, though, the reflexive association between public accessibility, vulnerability and unreliability offers a larger cultural and contextual comment on the distrust that we have of others and the individualist motivations that continue to isolate academic researchers, research and disciplines from each other.  Whether or not this is an artefact of print cultural practice or simply an inherent fear of anything other than our own capabilities, the intention behind the Gaming the Edition model is to erode these anachronistic and unproductive attitudes, and to take advantage of digital

affordances while preserving the rigorous scholarly practices that validate academic work.

One problem that is a more serious cause for concern involves identity confirmation.  In order to gain credit for work done within Gaming the Edition, registration requires the use of the player's real name.  This is done not only to ensure that appropriate credit is given on completed works, but also that earned achievements can be made publicly available for use on resumes and personal websites.  The problem lies with ensuring that people are who they say they are and not using the identity of another.  An example of this sort of requirement in an online game environment can be seen in *iracing*, an MMO auto racing simulator, often used for training by 'real' race car drivers (notably Dale Earnhardt Jr. and Jacques Villeneuve).  In order to avoid the obvious problems with multiple players wishing to claim the identity of their favorite driver, the game requires that each player use their full, real name and can only hold one account under that name.  In order to ensure that the names are 'real', *iracing* requires that the name of the player match the name on the credit card being used to pay the subscription fees.

Unfortunately (but fortunately), the Gaming the Edition  model does not require, or allow for, any financial contribution or commitment, removing the credit card from the equation.  While it is true that a credit or bank card could still be used for the sole purpose of identity confirmation, an additional barrier to access would then be in place.   This requirement would block potential editors from participating if they did not have access either card.  Additionally, such a system would require access to confirmation software and the associated fee payments.  Other services such as *mii Card* offer online identity verification services that, while free for the individual *mii Card* user, charges a fee to the one who requests the verification.  While there does not appear to be a direct resolution to this problem, the solution may lie in the nature of the model itself.

The first thing to note is that the potential 'dangers' of using someone else's name in Gaming the Edition are relatively minimal.  If an editor chooses to adopt a pseudonym, the only consequence would be to themselves - they would be unable to link their Gaming the Edition achievements and 'publications' to their real identities.  The real issue lies in the potential for identity theft - assuming the identity of a scholar, student, academic, or anyone else who could be harmed from negative conduct in Gaming the Edition.  Given the specialized nature of the model, scholarly digital edition creation, and the centrality of social interaction and apprenticeships, any significant threats associated with identity theft will likely be reduced by the relatively small network of professional scholarly editors and interested novices, and by the sense of community that the Gaming the Edition model reinforces.  To clarify, imagine there is a well-known scholarly editor, Professor Red.  If someone were to join Gaming the Edition before Professor Red, steal the name "Dr. Red" and undertake a malicious series of actions intended to harm Professor Red's reputation, it is likely that someone in the scholarly editing community would contact the real Professor Red, outside of the edition environment, in order to inform and inquire. Additionally, as mentioned above, the structure of the environment encourages cooperative and collaborative citizenship and thus works to reduce vandalism and harmful behaviour.  In assuming that the guild and apprenticeship-based community will encourage teamwork and camaraderie, we are assuming a form of social 'policing' that will deter malicious identity theft. This model is familiar to anyone who has lived in a "Community Watch" suburb and whose neighbours--while respecting privacy--are also particularly interested in and conscious of everyone's actions in that environment.

**Conclusion**

The Gaming the Edition model argues that 'traditional' conceptions of 'public' and 'private' as they

relate to academic participation can be re-examined and blended in order to allow for a greater level of 'public' access to scholarly processes.  By providing an open, 'public' environment, in which a controlled 'private' process occurs and which produces an open access, 'publicly' available product, this model allows for the maintenance of academic rigor while ensuring that everyone who wishes to participate is so able, and that the completed scholarly editions are made freely and openly available to all who wish to read and utilize them.

By altering the traditionally exclusive space associated with universities, this model challenges the financial and bureaucratic boundaries that typically limit true 'public' participation in academic/scholarly practices.  Although it maintains some of the power structures necessary to ensure academic rigor, the method of governing is inclusive, encouraging collaboration and the development of new frameworks and rule-sets as well as creative, collaborative scholarly editing.  Through the application of game paradigms to a collaborative training site for scholarly edition construction, the traditional forms of control associated with scholarly practice are fundamentally altered.  The process and product are ultimately governed by Coordinating and Managing Editors who not only act as mentors and 'guild leaders' for lower-level players, but also collaboratively design the environments, quests and badges that encourage skill development and the creation of real, digital scholarly editions.

By providing real world recognition for the creation of open access intellectual property, this model ensures that right to ownership of ideas is not denied.  By providing skill development, apprenticeship-style learning, and tangible rewards (in the form of badges and authorship), this model opens up the traditionally exclusive, 'private' practice of scholarly editing to true 'public' participation.

## Works Cited

"Annotated Bibliography: Key Works in the Theory of Textual Editing." *Reports from the MLA Committee on Scholarly Editions*.  MLA.  29 June 2011.  Web.  26 April 2013.

Bosch, Stephen and Kittie Henderson. "The Winds of Change: Periodicals Price Survey 2013." *Library Journal*. N.p. 25 Apr. 2013. Web. 26 Apr. 2013.

Bowker, Geoffrey C.  and *Star,*  Susan Leigh. <u>Sorting Things Out: Classification and Its Consequences</u>. Cambridge: MIT Press, 1999. Print.

Cham, Jorge, Nick Shockey and Jonathon Eisen. "What is Open Access?" *PhD Comics.* N.p. 24 Oct. 2012. Web. 26 Apr. 2013.

Gal, Susan. "A Semiotics of the Public/Private Distinction." *differences: A Journal of Feminist Cultural Studies* 13.1 (2002): 77-95. *Project Muse Premium*. Web. 18 Apr. 2013.

"Guidelines for Editors of Scholarly Editions"  *Reports from the MLA Committee on Scholarly Editions*.  MLA.  29 June 2011.  Web.  26 April 2013.

McCarty, Willard.  "Knowing...:Modelling in Literary Studies." *A Companion to Digital Literary Studies*, (Chapter 21). Eds. Susan Schreibman and Ray Siemens. Oxford: Blackwell, 2008.
http://www.digitalhumanities.org/companionDLS/

Salen, Katie and Eric Zimmerman. *Rules of Play: Game Design Fundamentals*. Cambridge: MIT Press, 2003. Print

Saklofske, Jon, et al. "Gaming the Edition: Modelling Digital Scholarly Editions within Digital Game Frameworks." Manuscript Submitted for Publication (2013). Print.

Suber, Peter. "Open Access Overview: Focusing on Open Access to Peer-Reviewed Research Articles and their Pre-Prints." *Earlham College.* N.p. 2 Apr. 2013. Web. 26 Apr 2013.

Weintraub, Jeff. "The Theory and Politics of the Public/Private Distinction." *Public and Private in Thought and Practice: Perspectives on a Grand Dichotomy.* Ed. Jeff Weintraub and Krishan Kumar. Chicago: The University of Chicago Press, 1997. 1-42. Print.

"Wikipedia:BADGE." *Wikipedia: The Free Encyclopedia*. Wikimedia Foundation, Inc. 28 Jan. 2013. Web. 26 Apr. 2013.

"Wikipedia:Barnstars." *Wikipedia: The Free Encyclopedia*. Wikimedia Foundation, Inc. 14 Apr. 2013. Web. 26 Apr. 2013.

"Wikipedia:Reward board." *Wikipedia: The Free Encyclopedia*. Wikimedia Foundation, Inc. 23 Apr. 2013. Web. 26 Apr. 2013.