

Patterns of Production in the Making of a Civilization Mod

Abstract: Metrics to evaluate open ended programming activities in game modding, spanning through periods of several months, ought to account for a wide-ranging array of salient social dynamics experienced by modders actively engaged with a fan community, such as forming of collaborative teams, negotiating creative authority and sustaining motivation through long timelines of production of a mod. Through a multimodal analysis of an “exemplar mod-production” case this study cross-examines participant’s mod-production practices through the cycle of production, completion and distribution of the mod, and examines how formalistic notions of traditional practices in computer programming, such as debugging, design or re-factoring are transformed in the context of game modding.

Background and Research Questions

Studies of learning through play and through participation in games-based “productive” practices, such as gaming literacies (Caperton, 2010; Salen, 2009), scientific literacy (Steinkuehler & Duncan, 2008), information literacy (Martin & Steinkuehler, 2010), systemic thinking and civic reasoning in history (DeVane, Durga, & Squire, 2010) and game design literacy (Hayes, 2008; Hayes & Games, 2008) have unequivocally demonstrated that productive gaming practices intersect with overlapping disciplinary specializations not merely in an interdisciplinary kind of a way — they also hinge on *thematic* overlaps amongst traditional disciplines, such as history, science, computation, mathematics, or information science (Gee, 2010). Because, games are rich with simulations and diverse representational forms that allow for epistemological pluralism (Shaffer & Clinton, 2006), they present unique possibilities for action for learners, thereby empowering learners to think about and leverage disciplinary content in truly transformative ways; for instance, leveraging mathematical modeling in Newtonian mechanics, or experiencing narratives in literature through play (Kaput & Shaffer, 2002; Shaffer, Squire, Halverson, & Gee, 2005 & Gee, 2005).

However, in the context of programming instruction, “productive” value of game modding continues to be limited to merely *instructionist* adaptations (Kafai, 2006) of modding to teach game programming (Hayes, 2007; Hayes, 2008; Hayes & Games, 2008; Kafai, 2006). On the contrary, an inherently fan-based production practice like, game modding ought to account for voluntary engagement, norms of the participation in a culture of digital production and acknowledge that modding entails not just technical maneuvering, but also a mastery of systemic relationships between models represented in the game (Durga, 2012; Durga & Squire, 2008; Squire & Giovanetto, 2008). Modding also entails a certain enculturation into the practices of the community, understanding norms of authorship and metrics of fan engagement valued by the community of players (Sotamaa, 2003; Steinkuehler & Johnson, 2009). In other words, game modding to a great extent relies on constant nurturing of a complex relationship with other players or fans of the game, and acquire the ability to relate to or appeal to fan audiences — a concept at heart of participation in new media and digital literacy practices (Ito, 2010; Magnifico, 2010; Rheingold, 2008). Arguing similarly, Gee (2010) has argued that *thematic disciplines*, like game modding, transform “hard-defined” disciplines into cutting edge thematic overlaps. In Gee’s words —

“At the cutting edge of research, researchers work on a common theme using methods adapted from a variety of different disciplines and integrating different disciplinary perspectives and languages enough to work together. Complex adaptive systems are complex systems that are composed of multiple interconnected elements and that are adaptive in the sense that they have the capacity to change and “learn” (adapt) from experience. Examples of such systems include the brain, immune systems, the stock market, ecological systems, cells, ant colonies, and some forms of social, institutional, and cultural organizations. Work in the area of complex adaptive systems is not merely interdisciplinary. Scholars in the area are not just using different disciplines. They also share some substantive perspectives, tools methods, and language and see some specific pieces of work in the area as exemplary for the area as a whole (Gee, 2010, p.4).”

This framing of disciplinary specialization particularly provides a pragmatic approach to think about an interdisciplinary game-based literacy, such as game modding. In a previous study, I have extended this line of reasoning in an earlier study, arguing that modding thrives in a complex ecology of mutual interdependence, between players, game designers, and publishers (Author, 2012). And, thus, it

becomes imperative to refine the concept of community (Lave, 1991); an affinity-based perspective of learning within interest-driven spaces (Gee, 2005), provides a way to re-conceptualize membership and shifts focus on thematic overlaps between varying practices motivated by varying pursuits (Author, 2012). Arguing further, in Author (2012), I portray varying participation inclinations for modding — mod-savviness, remedial play and hobbyist pursuits in programming, in the context of learning to mod and learning to program through modding Civilization.

The inevitable question is, then, how do we begin to understand and depict longitudinal new media production processes, such as game modding, that employs traditional technical mechanism, like programming, creating art etc. to materialize production? In other words, a) how do fan-engagement practices help shape or transform formalistically held values and notions about software engineering practices? And, might digital media and learning theories better inform learning through modding unifying values and norms of fan-engagement to “technicality” involved in actually building mods? Thus, I undertake questions pertinent to the mod-production processes that Civilization modders engage in and examine how these practices compare to traditional disciplinary practices in computer sciences, such as debugging, design or re-factoring. I pursue these questions through multimodal analysis Halverson (2010) of an “exemplar mod-production” case mined from the data corpus collected in an online ethnographic study of a Civilization fan modding community, *Civfanatics*, over a period of two years. I explore how fan-engagement practices help shape or transform formalistically held values and notions about software engineering practices, such as debugging, design or re-factoring.

Theoretical Perspectives: Multimodality In Mod-Production

Because the goal of the paper is to depict both, the “technicality” in mod-production and the “ethos” of a fan-based practice (Lankshear & Knobel, 2003), I seek to provide a model for highlighting how specific mod production practices evolve over time and how they overlap with disciplinary metrics in software engineering, through navigating *two modes* in the process of mod-production. Broadly speaking, modes can be thought of as “meaning making” systems, and multimodality holds that media are representational artifacts that are capable of uncovering meaning through leveraging interplay of several modes of production of content (Cazden et al., 1996; Jewitt, Kress, & Mavers, 2009; Kress, 2003). Modes are not merely mediums or creation formats, such as written texts, video, or, “software code”, but are also communicative shifts that are accomplished through use of multiple formats of production (Kress, 2001, 2003). In the context of game modding, thus, it can be argued that game modding draws upon an interplay of multiple “communicative” modes or modalities — through various forms of technical modifications, e.g. art or code, meaningful to the fans of the modding affinity space (Gee, 2005). In this paper, thus, I seek to examine participant’s “communicative shifts” (Kress, 2001), such as refining metrics of fun or playable mods, improvising existing mods or re-mixing mods to create new ones, as the participant engages with “code”. In particular, for analysis, I adapt Halverson (2010)’s multimodal analytic method employed to the analysis of film production. Halverson (2010) rationalizes the choices made by participant in the process of film production, while also depicting how those choices facilitated identity representation in certain ways. For example, she illustrates that examining the rationale behind the author’s choice of a certain movie-making technique, such as “bumping images from two different films into each other on screen” allowed the film producer to “switch topics in the personal narrative” (Halverson, 2010, p. 6). In a similar fashion, I repurposed Halverson’s method of analysis to examine modalities in civilization game mod-production, in this case the two modes being:

- a) Traditional programming practices, such as debugging or refactoring software code and
- b) *Remedial* game-play choices (Squire & Giovanetto, 2008) accomplished through repurposing of certain modding strategies such as simulating historical accuracy, or incorporating a functionally unique game mechanic or unit

Research Methods and Data Collection

Context of Study and Snapshot of Participant Demographics

The context of this dissertation is an online affinity-based fan community of Civilization players—*Civfanatics*. This study draws on a larger data corpus collected through an online ethnographic dissertation research that examined participation of Civilization players in modding in *Civfanatics* (Durga, 2012). As such, the methods of data collection for this study were predominantly based on ethnographic traditions of inquiry, observations and inference with the emphasis of the study to formulate theories of participation through emphasis on an “entire cultural or social system” of the *Civfanatics* modding community (Atkinson & Hammersley, 1994; Hine, 2000; Hine 2008). The methods of research and data collection included examining and inferring from data collected from developer and modder forums in *Civfanatics*, in-depth analysis of the code of downloaded mods that were created by the participants studies, inferring from data collected through chat logs from IRC chat-rooms onsite and participants’ posts related to Hall-of-Fame games — competition games that are posted from time to time by Civ players on the site.

As a first step to prepare collected for analysis, “categorical aggregations” (p-154, Cresswell,) of participant data were built. While Stake (1995) describes “categorical aggregations” (along with *direct interpretations, patterns, and naturalistic generalizations*) as four interpretive constructs to develop cases, I adapted Stake’s construct as a methodological filter for the data set to reveal different dimensions of information, such as amount of experience in modding, length of membership in *Civfanatics*, and other basic demographic information pertaining to age, location and sex. In other words, these categorical aggregations of interview participants ought be thought of as *profiling*, than an attempt of *building in-depth cases* of them (p-71, Stake, 1995). These modder profiles have been compiled and presented in table -1 below.

Table –I Categorical Aggregations of Modder Profiles

Participant Pseudonyms	Age/ Sex/ Loc	Member Since	Frequency of posts	Number of Mods	Participants prior background in programming and modding drawn (and inferred) from interviews
1. Nayan	15/m/ USA	2010	958 posts ~ 1.57 posts per day	3 published	Moderate experience in programming, has mostly played mods, has a keen interest in American history and started modding a year ago
2. Will	17/m/ USA	2010	< 0.1 posts per day	0 mods, 1 one software plug-in	No formal education in programming, but self-described as an amateur hobbyist programmer
3. Andy	19/m/ Taiwan	2010	<0.01 posts per day	1 in-progress	No programming experience at all
4. Saif Ali	24/m/ Israel	2010	1240 posts, ~1.78 posts per day	8 published, 1 in progress	Currently software professional
5. Dias	24/m/ USA	2009	500 posts, ~ 0.5 posts per day	1 published	No experience in programming, mostly played mods, got into modding only a year ago
6. Desi Himatvi	24/m/ USA	2011	66 posts ~.2 posts per day	3 published	Programmer and seldom active in the forums. Most participation is through content (or mod) creation and distribution.
7. Vijay [CFC Moderator]	25/m/ Germany	2008	19,606 posts, 16.19 posts per day	4 published, 1 in progress	Modest experience in programming when started to mod
8. Scoff Ferns	30//m/ USA	2010	32 posts	1 in progress	Started with not much modding or programming experience but engaged in one in-progress mod through the course of the year
9. Darken S	40 m/USA	2008	3965 posts, ~2.71 posts per day	1 published	No formal training in programming. Has tried some modding, but has played a numerous of them
10. Matt_B	40/m/ USA	2006	430 posts ~ .20 posts per day	1 published	Self-described as an amateur programmer. Never had formal training and developed the mod in collaboration with a team
11. Mike	45/m/ Germany	2005	430 posts < 0.05 posts per day	0 published	Does not mod at all. Historian, no experience in programming, plays hall-of-fame games
12. Leema Maher	41/f/ Canada	2008	2822 posts ~1.99 posts per day	2 published	No formal training in programming at all. BN (nursing), BSc, MSc, and PhD in Psychology. R.N. in in psychiatric nursing.
13. Tom Wilson	51/m/ USA	2010	1023 posts ~1.78 posts per day	6 published	Modest exposure to programming, but considers himself extremely technology savvy

Participant and Mod Data for this Study

For this paper, Nayan (pseudonym), see above, was chosen because he showed an interesting trajectory of development, starting from his borderline participation to now, an expert game modder, during the time that I observed him in *Civfanatics*. Again, because this paper attempts to capture participation over time, the objective of analysis was to account for various kinds of programming activities as seen in an exemplar case of participation — Nayan, instead of drawing representative conclusions based on participation of all participants interviewed and studied. While representativeness is a crucial, significant next step, this work has been taken up elsewhere (Durga, n.d.).

In the following, figures (1) and (2) provide snapshots of the participant and the content-distribution participant's posts in Civfanatics Modder forums respectively. The data corpus also includes several informal, in-depth interviews (Seidman, 2006), during the course of the study. Data included in this study were collected over the course of the two-year online ethnographic study (Androutsopoulos, 2008; Hine, 2008) of the modding community in *Civfanatics*, and thus, includes —

- a) 9 versions of the a mod that were installed, played and analyzed for code-content and file addition, modification or deletion changes
- b) Excerpts from participant interviews and
- c) Forum posts made by participant during the development of the mod

Pseudonym	Nayan
Age/Sex/Location	15/m/USA
Member Since	2010
Frequency of posts and No. of Mods	958 posts (~ 1.57 posts per day) 3 Mods
Description	<i>Junior High student with moderate experience in programming. Has mostly played mods, has a keen interest in American history and started modding a year ago</i>

Figure 1: Participant Snapshot

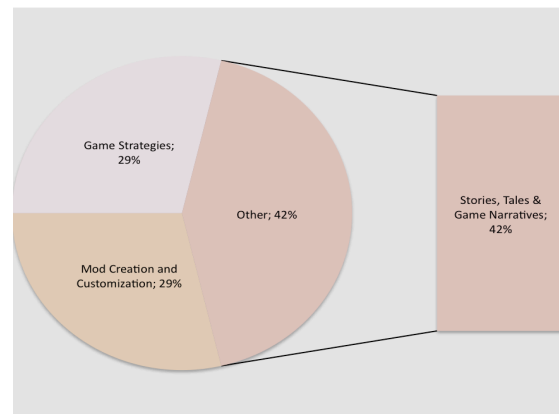


Figure 2: Content distribution of Nayan's post

Methods of Analysis and Findings

The “digital” aspects of the mod-production process were analyzed through examining content and the type of modifications, i.e. mod files, images, art, mod components, over time. And, subsequently the coding techniques that were adopted by Nayan to implement certain play metrics were traced over time. In a nutshell, the analysis followed tracing and retracing of Nayan's “communicative shifts” (Kress, 2003) between the two modes in mod-production — remediating game-play and the inherent programming approach employed in order to to accomplish it.

Content Modifications Over Time

Mod versions were uploaded to a private code repository created on Github — a web-based code repository management system and content modifications, including files added, deleted and modified, were plotted and depicted in Figure (3). The objective of such a broad brushed approach in the estimation of content modifications over time, instead of solely estimating “lines of code” (Blikstein, 2011; Hertel, Niedner, & Herrmann, 2003), was to draw on *patterns of production*, i.e. highlighting salient code changes and the kinds participant interactions on forums during those versions.

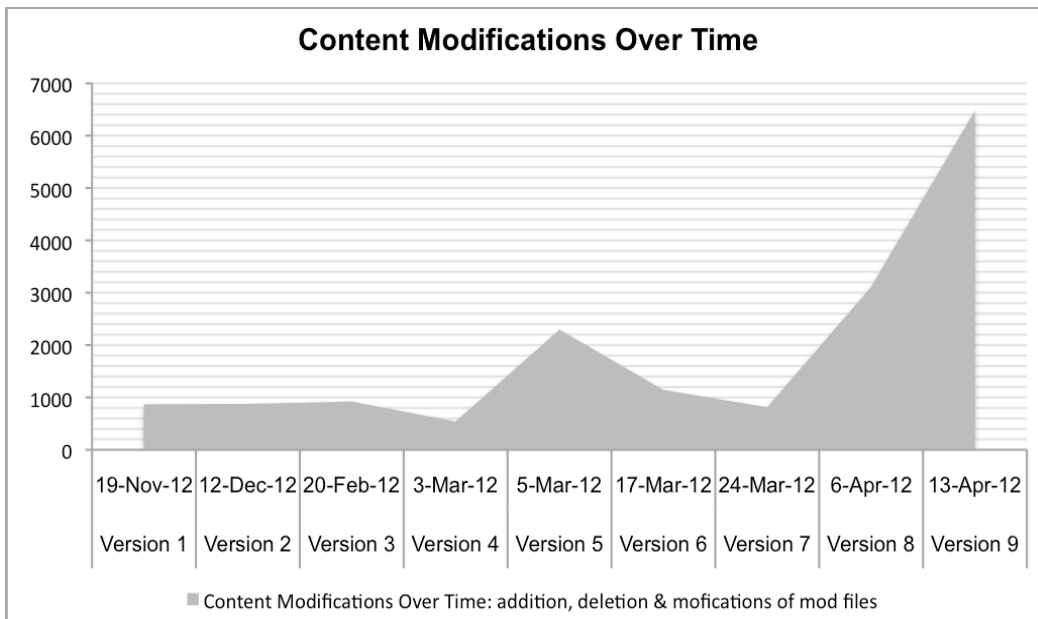


Figure 3: Changes in “lines of code” between mod versions —includes, addition deletion and modifications of both code and asset files

Each peak in the graph above (Figure-3), i.e. the first phase from November to mid-March, second from mid-March to early April and third phase during the month of April, was treated as a phase of production.

Subsequently, in order to examine Nayan’s learning processes in modding, prototypical forum posts made during each phase of production that illustrated some sort of “communicative shift”, i.e. engagement with other fan modders in refining “what is play-worthy”, or accomplishing a certain game-metric in the mod, were tracked, included in Appendix-I (for reference). All the forum posts were drawn from Nayan’s modding threads that were relevant to this particular mod, posted on *Civfanatics*

Discussion: Patterns of Production

Modders’ Block

Production Phase		Summary of Activity	Prototypical posts during time-period of each production phase depicting forum activity (technical or fan feedback)
Exploratory coding and Modders’ Block	Version 1 (Nov 19, 2011)	– Versions 1, 2 included XML changes	<p>Post-Set I: Jan-24-2012 – Nayan: Currently this mod is still very much work in progress. <u>I just have bit of a modders’ block</u>. New Leader ideas, traits etc would be greatly appreciated!"</p> <p>Response 1: Joan of Arc: Her traits are OBVIOUSLY Aggressive and Spiritual</p> <p>Response 2: King David: aggressive and Creative"</p>
	Version 2 (Dec 12, 2011)	– Versions 3 and 4 included map changes.	
	Version 3 (Feb 20, 2012)	– Two new maps added amounting to 38.5 % of code revisions attributed to map folder	
	Version 4 (Mar 3, 2012)		

Figure 4: Phase-I— Exploratory Coding & Modder’s Block excerpted from table in Appendix-I

As can be seen, the first ‘phase’ of production, from November of 2012 to the first drop in mid-March, includes the first four versions of the mod. Upon examining the contents of mod directory for these versions, I found that the most changes in the code involved *content swapping*; meaning, large chunks of asset files, images and maps were copied as is, without much other modifications to code. It was also during this phase, that Nayan initiates an idea-generation thread that resulted in a “bucket-list” of features, suggestions and recommendations proposed by other modders in the *Civfanatics*. As

an instance, see the following excerpt from a forum post, where Nayan seeks for ideas about new leaders and interesting features for the mod:

Nayan:

“Hey all—currently this mod is still very much in *work-in-progress*. ***I just have bit of a modders’ block***. Ideas for leaders, traits etc. would be greatly appreciated! This is a very simple version, also my first. My main goal for the mod is to add any war leaders I can think of off at the top of my head — new leader ideas, traits etc would be greatly appreciated [Emphases added]

Nayan’s primary emphasis in his early iterations of the mod was on refining metrics of “fun” for the mod (Salen, 2009). Not surprisingly, thus, *modders’ block* remained the longest phase in Nayan’s mod-production cycle, lasting for four and a half months. In a subsequent interview, Nayan shares his struggles, to find a cool feature to implement —

“Well, so my first version was actually very short lived where I tried to add warlords and heroes from all over the world. Little did I know that many of these existed in other, much more polished mods. But this was really what got me started.”

The above excerpt suggests that Nayan’s primary source of feedback and warrant for originality (Gee & Hayes, 2010) was derived from what was important to the community. Nayan’s threads focused on generating ideas that “did not exist in other mods” and thus, was “fun” to pursue.

Exploratory coding and Syntactic Templating

Exploratory coding/Syntactic templating	Version 4 (Mar 3, 2012)	– XML editing	<p><u>Post-Set II: Feb-8-2012 –Feb-11-2012</u></p> <p>Does anybody know what it would take to integrate the mod with a Ranged Bombardment component? PS: Expansionists now done as well :) Btw thanks for the <u>25 downloads on my not-anywhere-close-to-being-done mod :)</u></p> <p>Response1: ranged units requires DLL recompilations and I haven’t done those even after a year of modding</p> <p>Nayan: I have all the assets, Civs, etc. drafted. wish I didn’t have to combine these things.</p> <p>Response2: You should may be private message a moderator. <u>Sometimes they can do it for you.</u></p> <p>Moderator: I took a short look, there’s a bit of work involved. I will have more soon.</p>
	Version 5 (Mar 5, 2012)	– new changes to scripting rules were added e.g. 'US Confederates' was added as a new playable Civilization	
	Version 6 (Mar 17, 2012)	– 1 new mod component added but was not used; meaning python scripts did not reflect changes that were impacted by the new mod component	
	Version 7 (Mar 24, 2012)		

Figure 5: Phase-II— Exploratory Coding & Syntactic templating excerpted from table in Appendix-I

The next significant peak in content modifications (figure-3) was considered as the next ‘phase of production’. Upon examining the content of game files it was observed that most code changes during this phase, for versions 4 through 7, several mod components were copied to the mod directory, without actually using the component to change the behavior of objects in the game. Game components are behavior modifiers that can be added to game units to make them unique, *ranged-bombardment* for example. However, absence of code that actually made use of the unique component suggests that these additions were an exploratory effort to gain better understanding of the code. As is also indicated in the following post, Nayan in this phase continues to seek technical help:

“Does anyone know what it would take to integrate the mod with a Ranged Bombardment component? I have all the assets, Civs, etc. drafted. Wish I didn’t have to combine these things”

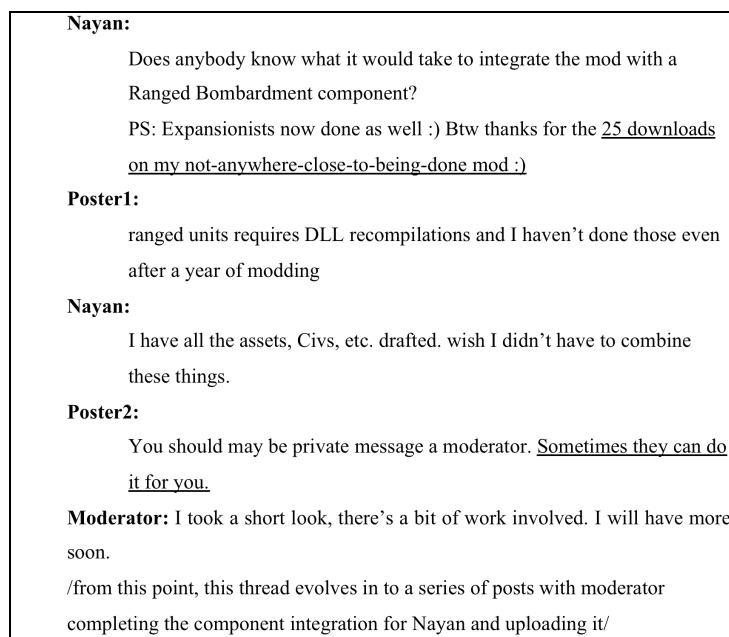
Contents of the mod folder also revealed that most of the changes were about addition of assets followed a syntax templating strategy; meaning Nayan's coding mechanisms were predominantly borrowing much of pre-existing code from the vanilla mod version and building or adding features to it (Kim, Bergman, Lau, & Notkin, 2004; Kim, Sazawal, Notkin, & Murphy, 2005). I use the term syntactic templating, to refer to swapping of variables, or complete asset files into existing function and elements as a building strategy, prior to refining the exact features to be implemented for the mod. Syntactic templating was also a way for Nayan to 'read' the code and estimate his own capacity to engage in code.

Finishing and 'refining' the mod

The final month prior to the upload of last version was considered to be the final phase in the mod-production. A significant and a sharp spike in "amount of content modifications" characterize this phase (see figure-3). Due to the sharper spike indicated in the graph, it was inferred that during this last month Nayan pulled in most of the resources that he had managed to acquire, and skills he learnt or sought help for, in order to finish the mod. In fact, most posts during these last months were more about polishing, or creating elaborate documentation for installation and instructions for play. As an example, here is a post that Nayan makes asking about 'balance issues' in the game —

"Are there any balance issues that need to be addressed?"

Balance issues are common in simulation based strategy games like Age of Empires, Starcraft of Civilization, which pretty much dictate the level of complexity entailed in game-play, thereby making it complex at the "right level" to make it fun, or disastrously challenging making it a hardly played mod (Hayes & Games, 2008). Posts during this phase also reveal that when Nayan's attempts to seek advice on how to integrate Ranged Bombardment component to the mod remained futile, and the moderator steps in to code that part of the mod, e.g. see figure (4) below:



Nayan:
Does anybody know what it would take to integrate the mod with a Ranged Bombardment component?
PS: Expansionists now done as well :) Btw thanks for the 25 downloads on my not-anywhere-close-to-being-done mod :)

Poster1:
ranged units requires DLL recompilations and I haven't done those even after a year of modding

Nayan:
I have all the assets, Civs, etc. drafted. wish I didn't have to combine these things.

Poster2:
You should may be private message a moderator. Sometimes they can do it for you.

Moderator: I took a short look, there's a bit of work involved. I will have more soon.
/from this point, this thread evolves in to a series of posts with moderator completing the component integration for Nayan and uploading it/

Figure 4: Moderator offering help with programming

Thus, in his final implementation, while Nayan gains an overall 'conceptual' understanding about the role of the mod component, he does not actually engage in programming and re-compilation of the source code. This phase can best be described as short period of intense coding bouts, during which most collaborative associations were dynamically formed. In his interview, Nayan describes his experience in modding as follows:

"[it took me] a couple months working on and off. I worked with JJVitti [pseudonym] for re-sizing images for the mod, and also for some XML when I was just beginning to mod this. But that's about it"

He further elaborates:

“Beginning [the project] was a hassle because I wasn’t sure which of the many files I had to use to get it to work right. I had some major difficulties with getting new units graphics to work me...I looked at the database link again [refers to a link on Civfanatics], it had instructions for which settings to use etc. But I solved that with trial and error most of the time.

Modding is fun, but it's more of a hobby and the more advanced languages like C++ and python are a bit above my head. I just like that people are downloading them, it makes me proud that they're presumably enjoying it and that I'm providing a new experience to them”

Nayan’s description of his mod-production process suggests that while modding certainly includes gaining competence in technical processes like knowing how to program in C++, because the design and social dynamics of the modding affinity space — Civfanatics, facilitates “fan production” as opposed to “code production”, Nayan’s process of refining the code of the mod, in this case, integrating the mod-component, looks less like debugging; rather Nayan’s code maneuvering techniques, like finding the right components, narrowing down which code files to change (xml or python), and so on exemplifies a sophisticated level of understanding about the code of Civilization Mod by Nayan. In addition, a simulation-refinement activity, like modding, mitigates frustrations over error debugging and makes visible lateral options for solution (Ragan et. al., 2009, Sicilia, 2006). Of course in Nayan’s case the option was gaining specialized technical support from the Moderator; nonetheless this does not diminish Nayan’s creative authority over the completed mod.

Conclusion and Implications

In this paper, I underscore the importance of fan-response and how a participant’s perception of about the fan space can significantly impact their production techniques. For instance, content swapping is an accessible and an easily employable technique to navigate large code bases, when one might need to quickly test a large number of ideas. Secondly, I also illustrate how multimodality as a methodological construct borders on theory and practice, both of which are crucial in examining new digital practices such as, game modding. By focusing merely on code, without illustrating ‘participation’ or engagement with fans, conceals crucial moments in Nayan’s learning, such as his prolonged modder’s block, or struggle for technical implementation of certain features during the final iteration.

Typically when we think of longitudinal open-ended programming activities, we think of it in terms of a summative record of achievement and much less as a performance in formation arbitrated by an “eager public” (Magnifico, 2010). In the case of Nayan, this raises questions about what kinds of relationship may be drawn between long periods inactivity (i.e. modder’s block) and his expertise in programming per se. In some ways, multimodal communicative shifts allow us to delineate participants’ response to affordances presented by infrastructural elements (or “digitality”), like use of existing mod components to refine “metric of fun”, instead of building one from scratch. In the case of mod-production in Civfanatics, adding features to the mod and the technical complexity involved is thought in the aftermath, as is suggested in Nayan’s second phase of mod-production cycle in his post about not knowing how to integrate the ranged bombardment component with the mod. Nayan’s limitation in his prior technical capacity, instead of restricting his creativity and imagination, allowed him to seek for an idea worthy of pursuit, and ultimately results in the moderator stepping in to help with programming just that piece. Understanding, or at the least noticing, key moments or phases like these in a participants’ trajectory of learning might help signaling the need for further mentoring resource allocation in that area.

As researchers continue to explore disciplinary learning possibilities within game-based spaces, it is imperative that they continue to find innovative associations between practices, participant interactions with their affinity groups, the kinds of feedback that is sought during different stages of a mod-production process, and above all, enable for the kinds of design of learning environments that can foster “authority” in productive spaces. In some sense, because mods are fan-nominated, success of a mod is not based on errors in code as much as they help generate fan traffic, and thus, keeps alive Nayan’s continued motivation to mod, or, as he puts it —

“ I hope to learn C++ some day; it shouldn’t be too difficult”

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Appendix- I: Combining of mod versions, feature changes, forum activity and feedback

Production Phase	Summary of Activity	Prototypical posts during time-period of each production phase depicting forum activity (technical or fan feedback)
Exploratory coding and Modders' Block	Version 1 (Nov 19, 2011)	<p>Post-Set I: Jan-24-2012 – Nayan: Currently this mod is still very much work in progress. <u>I just have bit of a modders' block</u>. New Leader ideas, traits etc would be greatly appreciated!"</p> <p>Response 1: Joan of Arc: Her traits are OBVIOUSLY Aggressive and Spiritual</p> <p>Response 2: King David: aggressive and Creative"</p>
	Version 2 (Dec 12, 2011)	
	Version 3 (Feb 20, 2012)	
	Version 4 (Mar 3, 2012)	
Exploratory coding/Syntactic templating	Version 4 (Mar 3, 2012)	<p>Post-Set II: Feb-8-2012 –Feb-11-2012</p> <p>Does anybody know what it would take to integrate the mod with a Ranged Bombardment component? PS: Expansionists now done as well :) Btw thanks for the <u>25 downloads on my not-anywhere-close-to-being-done mod</u> :)</p> <p>Response1: ranged units requires DLL recompilations and I haven't done those even after a year of modding</p> <p>Nayan: I have all the assets, Civs, etc. drafted. wish I didn't have to combine these things.</p> <p>Response2: You should may be private message a moderator. <u>Sometimes they can do it for you.</u></p> <p>Moderator: I took a short look, there's a bit of work involved. I will have more soon.</p>
	Version 5 (Mar 5, 2012)	
	Version 6 (Mar 17, 2012)	
	Version 7 (Mar 24, 2012)	
Finishing the Mod: Intense modding bouts	Version 7 (Mar 24, 2012)	<p>Post-Set III: Mar 3-2012 – current (no versions past April)</p> <p>Nayan: Unofficial poll to anyone who downloaded, would you prefer ranged bombardment or integration of K-Mod (several posts highlighting player preferences for either modcomps were posted)</p> <p>Nayan: Started playing a game today. Turns out it works and is too difficult. I'm planning on adding some civilopedia entries for new civs, units and stuff. <u>Are there any balance issues that need to be addressed?</u></p>
	Version 8 (Apr 6, 2012)	
	Version 9 (Apr 13, 2012)	