Social videogame creation: Lessons from RPG Maker

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Structured Abstract:

Purpose – Online community sites devoted to RPG Maker, inexpensive software for creating role playing video games, have emerged as spaces where young people are developing valuable competencies with digital media. This study examines the largest of these communities.

Design/methodology/approach – The study uses a mix of qualitative methods including a survey, interviews and analysis of the structure of the site. The study uses discourse analysis and is grounded in work on situated learning.

Findings – The study suggests that the site and community is scaffolding young people into deeper understanding of digital production and the development of practical skills, like programming, as individuals take on identities associated with different roles in game design.

Research limitations/implications – This study reinforces the value of research focused on young peoples social media creation and also suggest there is still much to be learned about technologically simple but socially rich platforms like web forums. As qualitative research it does not generate statistical generalization.

Practical implications – This research suggests three implications for the design of online learning environments focused on media production. Designers should 1) start with learner's interests and basic skills will come; 2) support a diverse range of production roles and identities; and that 3) simple technical systems can support sophisticated digital learning communities.

Originality/value – While there is much work on learning in online communities little of that work has focused on the importance of different roles in those communities and little has focused on implications of these spaces for designing online learning environments.

Every day, several hundred members of the RPG Maker Community read through a new set of project development posts on the community's forums. In each of these posts, amateur game designers share 500-1000 word game proposals for community critique. Over the next few days, each of these proposed projects receives extensive feedback from the community. In other sections of the community website, members share their artwork or music, while others share custom computer code, and still others share tutorials for specific processes of game design using the RPG Maker software. In each case, community members expect extensive critique of their compositions and are excited for other community members to incorporate their work into new game projects. The young people participating in this online community are engaged in the development of valuable digital media skills. Before analyzing this site as a learning community, I will situate my approach in research on social media and the important role web communities are playing in the development of new literacies.

Web Forums as Hubs of Social Production

The idea of social media brings to mind web applications and platforms like Facebook, MySpace, or Twitter, which are each tied up with notions about web 2.0 and web 1.0. Cormode & Krishnamurthy suggest "the essential difference between Web 1.0 and Web 2.0 is that content creators were few in Web 1.0 with the vast majority of users simply acting as consumers of content" (2008). While there are significant technological advances enabling new social means for creating media, the idea of digital content production has, to a lesser extent, been a vital component of 1.0 web culture. As Tim Burners Lee suggested, the idea of the web as a place for social interaction, the idea of web 2.0 and social media, is "what the Web was supposed to be all along." While the emergence of social sites have played a role in this transition, web forums, like the forums analyzed in this paper, have a long history as part of the social web. As the web has matured so has the behaviors of its users. The differences between Web 1.0 and 2.0 documents a change, but is as much a change in user

expectations, as technological. There is much for designers of educational software to learn from new social media technologies. But, there is also much to be learned from examining how more straightforward web platforms, like web forums, support social user generation of digital content.

New Literacies and Creating Digital Media in Web Forums

In response to demands for digital competencies, scholars have begun to frame media engagement and production skills as new literacies (Lankshear & Knobel, 2003). Online affinity communities, that is, websites and web forums where individuals discuss and create media associated with common interests, are increasingly being explored as places where young people are acquiring these new literacies (Gee, 2004). Through extensive ethnographic fieldwork, Ito and others found significant numbers of young people engaged in these communities are "learning to navigate esoteric domains of knowledge and practice and participating in communities that traffic in these forms of expertise" (2010, p. 28). Studies of fan fiction forums (Black, 2005), and videogame fan-forums (Squire & Giovanetto, 2008; Duncan, 2010; Owens, 2010) suggest that young people are acquiring valuable new literacy skills in these communities. The RPG Maker community offers an additional space to explore how these communities work and begin to understand the elements of these communities that can be leveraged in the design of learning environments.

Research Methods and Design

There are a variety of community websites associated with RPG Maker, this study examines the largest, rpgmakervx.net. Beyond being the largest, it is currently the most active. The diversity and ever-evolving nature of web based informal learning communities makes it difficult to imagine developing the kind of exhaustive research literature one might hope for. To this end, I have adopted a flexible set of qualitative methods to triangulate an understanding of the community. To establish a general context of involvement and engagement I conducted a randomized survey of participants active

during a week in January of 2010. The survey of 80 participants (53% response rate) charts basic

demographic information about the community member's engagement. More importantly, the survey

allowed me to purposefully select 10 individuals representing the diversity of the overall sample to

interview. I then corroborated dialog from interviews with participant's interactions on the discussion

boards. As a final element of analysis I consider the experiences of these individuals in relation to the

overall structure of forums.

To engage with this data from a coherent perspective I approach all the data as Discourse (Gee,

2005; Fairclough, 2003). From this perspective, all of the data are understood as a part of the discourse

surrounding and sustaining the RPG Maker Community. In each post, in the interviews, and in the

responses to the survey, each participant is understood to be enacting an identity, and those identities

are, in essence, the subject of this research (Gee, 2000). This discursive identity based perspective is

complemented with a view of learning as embedded in everyday activity and environments based on

sociocultural activity and situated learning theories (Cole, 1996; Roth & Lee, 2007) and directly related

to notions of the development of competence associated with novices engaged in domains developing

toward experts (Sternberg, 2005). Collectively, this method and theoretical perspective let me explore

the relationship between the structure of the site and the actions, practices, and thinking of it's users.

RPG Maker Software and Community

For more than 20 years, versions of the RPG Maker software application have provided a tool to

create role playing video games. Briefly, role playing video games are a popular genera of video games

which generally involve navigating a character through a series of quests by solving puzzles, exploring

a digital environment, and fending off a range of foes. Most role playing games include relatively

straightforward linear narratives. Well-known examples of commercial role playing games include

Pokemon, Zelda, and Final Fantasy games. These games generally involve a top down interface in

which players navigate a virtual environment and interact in dialog with other characters (Figure 1).

Figure 1. Screenshot from RPG Maker game

Figure 1: Screenshot of a town from participant Mr. Moo's game Prelude of Identity. *In this image the player is interacting with a town's person, the dialog of the interaction is shown in the translucent dialog box at the bottom of the screen. This is both an example of a typical role playing video game interface and a game created with RPG Maker.*

At a cost of less than sixty dollars, RPG Maker VX is a rather inexpensive commercial

application for creating video games. Targeted primarily at amateur and enthusiasts it is not a

particularly robust platform for game building. Instead, it focuses on making it relatively easy to build a

game based on the general conventions of the genera. The software provides a graphical interface for

creating the components of role playing video games and then enables its users to publish the resulting

games as executable files which can then be installed and played by anyone with a windows computer.

The application's interface allows users to create maps for their games and then add monsters, design

quests, define player interactions with their maps, and add custom images and audio files (Figure 2).

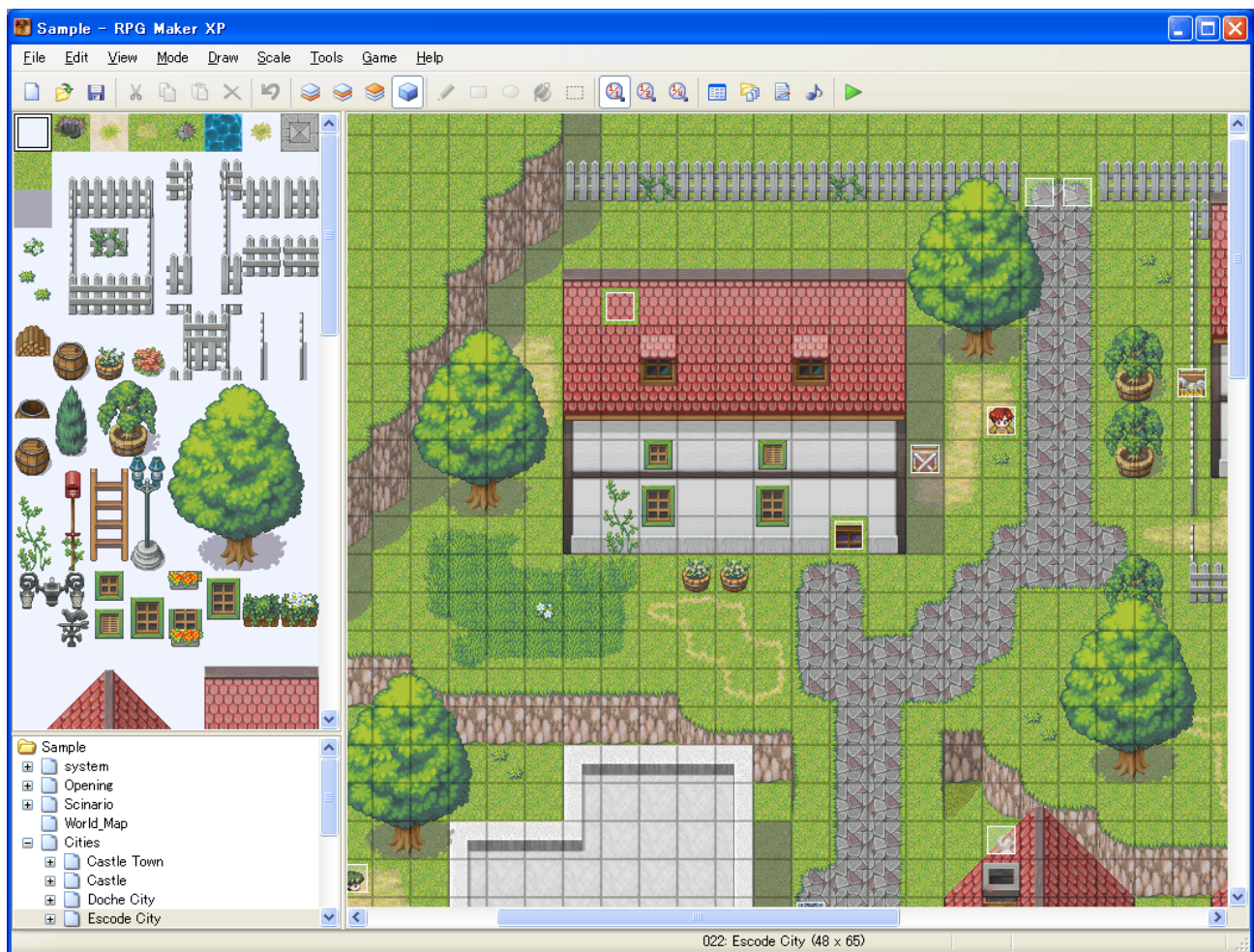**Figure 2. RPG Maker VX Application Interface**

Figure 2: This screenshot of the RPG Maker VX interface shows the map editor where users edit and manipulate the game world. In this particular view the user edits their game maps. They can then drag and drop elements, like the trees and fences pictured on the left, on to tiles of their map on the right. From there they can click on the tiles to open a dialog box and edit the interactions they would like to enable on a given tile, like dialog interactions with a character, or opening a door.

Each version of the RPG Maker software application has had a significant online community

associated with it. Of the various community websites devoted to the software the official community

for the current version of the software is the largest and most active. The software developer,

Enterbrain, Inc, owns the community forums, but the site is almost entirely managed by volunteer

enthusiasts. The forums provide a space where users discuss and critique their game designs, custom

artwork, music, and custom computer code (Figure 3). These forums also provide a place for users of

the software to download resources other members have created (like maps, artwork and music) and a

space where participants can share links for others to download and play copies of the games they have

designed.

Figure 3: Section of Rpgmakervx.net Community Site Homepage

▸ RPG Maker VX			
Forum	**Topics**	**Replies**	
Completed Games This forum is for completed games only! You cannot start new topics here. If your game is complete than please post it in the Project Dev forum, and ask a mod to move it. Forum Led by: _Jack Sevington, Rixis_	151	6,853	
Project Development Plan to make a game using RPG Maker VX? Feel free to discuss your project's developments, and post your project ideas. Please only post projects that you have made enough progress on to display to the community. Subforums: _Project Recruitment, Early Project Feedback, Other Maker Projects_ Forum Led by: _Jack Sevington, Rixis_	2,431	38,521	
RPG Maker VX General Discussion What else are we here for? Discuss Enterbrain's latest maker, RPG Maker VX, here! This includes updates, changes, general questions about the maker, etc. Subforums: _RPG Maker VX Downloads_	1,577	20,316	
RPG Maker VX Support / Help Need help with our favorite maker? Request support here. Forum Led by: _The Scarezo Walks at Midnight, The Mayor of Halloweentown_	9,688	42,702	
RPG Maker VX Tutorials Post your RPG Maker VX tutorials, guides, and other developer related articles here. Forum Led by: _The Mayor of Halloweentown, PentagonBuddy_	599	6,509	
Resource Show Case Come here to submit your latest resources, ask for opinions on your works, or just show off your latest work. Members may upload resources in their topics. Forum Led by: _The Root of all Evil, Super Stick Lyonn, Avadan_	6,706	68,635	

▸ RGSS2/Ruby Scripting		
Forum	**Topics**	**Replies**
Complete RGSS2 Scripts Completed RGSS2 scripts only! Please do not post your non-functioning, test, or buggy scripts here. Post your WIPs in RGSS2 Scripting Language Support. Forum Led by: _Mithran, Mr. Bubble_	624	20,255

Figure 3: This section of the RPG Maker VX community site shows several of the top-level sections of the forums. Users can download and review games created by other users in the completed games section, post games they are developing in the project development section for community review,

refine their skills by reading guided instructions composed by other participants in the tutorials section, and browse artwork and other resources created by other users in the Resource Showcase.

While the software itself is interesting, the user group that has emerged in the community site is even more fascinating. These web forums were originally set-up by the software company, but over time the structure and organization of the forums have been reorganized by the community site's members to best fit their needs and roles. In this respect, the forums are a kind of native species of digital learning environment which has developed over time through the needs and desires of community participants.

Who are the RPG Makers: Survey Results

It is best to develop a survey with a specific population in mind. Part of the difficulty of surveying a diffuse community, like the online community associated with the RPG Maker VX site, is in defining the boundaries of that community. The site has over 40,000 members, and during any given visit to the site nearly twice as many non-members are viewing the discussion boards as members. There is no trace of non-member visits, so there is no way to randomly sample them. To generate a cross-section of participants I sampled community members who had been logged in to the site during a week in January of 2010. I used the sites member search system generate a list of 1740 members who had logged in over the proceeding week. I then randomly selected a group of 160 members to contact, 85 responded resulting (53% response rate). In accordance with human subjects review boards requirements, I did not contact anyone who either did not list their age or listed their age as less than 18. 17 individuals were not contacted because they did not list their ages, and 10 were not contacted because they stated they were under age 18. With this noted, the following trends emerged in the survey.

This is a community of young people: Of the 83 respondents who reported their ages 70% reported ages between 18 and 26, *(Mdn. = 20, M = 22.5, SD = 5).* These numbers are skewed slightly

higher by the fact that only members who reported ages above 18 were contacted. The mode age of 19

is likely a slightly better approximation of the middle of ages in the community. It is often taken for

granted that young people are the primary participants in these kinds of online communities. These

survey results substantiate those expectations. Importantly, in this space young people are both the

teachers and the learners.

These young people are spending significant amounts of time on digital projects: Most of those

surveyed reported being involved with the community site for more than a year (56%) and many of the

others (31%) reported having been involved for six months to a year. Many of the survey participants

reported spending a considerable amount of time each week working on their game projects, with 28%

reporting spending more than eight hours a week working on their game projects, and 21% reporting

spending between four and eight hours.

This is a place where young people are first exposed to programming: RPG Maker VX includes

a system for incorporating custom computer code called the Ruby Game Scripting System (RGSS),

which extends the widely used Ruby Computer Programming language. Most community members

(83%) report that they have used the games scripting system. Further, this was many of these

participants first experience working with computer programming. Specifically, 35% of the

respondents reported that working with RPG Maker was their first experience with computer code.

Participating in the Community

Beyond establishing general trends for understanding community participants the survey served

as a means to select ten individuals to interview and document interactions on the forums. This section

charts general patterns for interaction and engagement with the community, primarily supported

through participants reflections in interviews. Specifically, I have included analysis of three spesific

users comments that speak to general themes which emerged in the ten interviews. Participants chose to

be identified by their screen names.

Joining and Defining the Community

I began each interview by asking the participants how they became involved in the community.

The following includes the key facets of participant's responses. Examining them in detail provides an

understanding of the features of the community that attract and sustain participation. In general,

participants reported first visiting the site to find resources they could use in their own games.

> Stanza 1 *(Zaidi, 19, female, Oregon)*
> (1) I guess was initially sparked by the resources the RMVX site had.
> (2) Facets, music tracks, character sprites –
> (3) it was a growing treasure box for customizing

Zaidi attributes her initial involvement with the community resources it offered, like music and

artwork, which she could integrate into her game (line 1-2). Whenever interview participants offered a

substantive description of how they became involved with the rpgmakervx.net community they

mention that they were first attracted to the resources the site provide. These user-generated resources

serve as the basis for attracting community members.

To understand how participants view the community site I then asked then "How would you

describe the community to someone unfamiliar with it. The following response from Sciaya, a 19-year-

old woman from Finland. Her focus on the role of resources, sharing work, inviting and critique, and

finding collaborators are indicative of the range of reasons discussed by interviewees.

> Stanza 2 *(19, female, Finland)*
> (1) There is good amount of information and tutorials
> (2) (both for newbies and more developed RPGMers).
> (3) Besides all other help there is a showcase for resources.
> (4) Those are mainly free to use by anyone who credits the person who has made the particular resources.
> (5) The forum also provides possibilities to show your progress on your game and ask critique on it,
> (6) to join a developer team working together on a project,

or ask help for certain aspects on your own game.

Sciaya first establishes that the site is a valuable repository of information and tutorials (line 1) and

then qualifies that those guides and documentation are valuable to both individuals new to RPG Maker

and those with considerable experience (Line 2). She then focuses in on the sites "Resource Showcase,"

a section of the forums in which individual community members share the resources, like audio tracks,

and character artwork, which Zaidi (Stanza 1, line 1) had discussed as one of the core reasons she

became involved in the community (Line 3). She then suggests that the site is also a space for showing

one's progress, inviting critique, collaboration, and a place to ask for help (Lines 5 and 6). Throughout

this explanation she makes clear that the site is both a space for sharing resources and a space for

learning to improve one's designs through critique and creative dialog. After discussing these

components of the site, Sciaya concludes her discussion by focusing on the importance of the different

the kinds of roles members take on.

> Stanza 3 *(Sciaya 19, female, Finland)*
> (1) The variety of RPGMers on this community is vast.
> (2) There are scripters, eventers and also musical or graphical artists and writers.

Part of Sciaya's definition of the community involves defning the diverse kinds of roles participants

take on (Line 1). She then goes on to describe participants roles based on the kind of creative

production they engage in (Line 2). Many of the community participants, unprompted, begin to

describe themselves in terms of the roles they take on in creative production. Analysis of the structure

of the forums suggests how the community site's structure reinforces this kind of division of creative

production.

Structure of the Site, Structure of Production

When visitors land on rpgmakervx.net for the first time they are introduced to the site through

the structure of the forums. Figure 4 shows 6 of the most popular sections of the forum's 19 top-level

sections. The way these discussions are separated connects directly with the kind of separation of roles

that emerged in participant interviews.

Figure 4. Six Most Popular Sections of RPG Maker Forums

Major Forum Sections	Topic Threads	Total Posts
Community Central	589	6,291
RGSS/Ruby Scripting	5,724	38,749
RPG Maker VX Support	8,228	36,379
Completed Games	115	5,212
Project Development	2,039	30,233
Resource Show Case	3,230	54,944

At the very top level of site organization rpgmakervx.net is organized around different

production roles associated with game design. Community central is a section devoted to "community-

related announcements" and a place for members to give "feedback about the site/forums." The other

sections are organized around the roles of resource production Sciaya and Zaidi mentioned. Beyond

this distinction the sections also differentiate between production within those roles and consumption of

the results of the creative work accomplished in those roles. For example, by separating the Completed

games discussions from the Project Development discussions the site provides a point to explore

finished games as separate from the space in which individuals dialog about ongoing game

development projects. While this breakdown of roles may seem like a natural way to organize this kind

of site it is important to note that a space like this could just as well be organized by game themes

(sections for science fiction and fantasy games) or simply by individual game projects. Examining one

of these subsections will provide further evidence of the way the site organizes and structures

participation. Figure 5 shows the subsections of the RGSS2/Ruby Scripting sections.

Figure 5. Sub-Sections of the RGGS/RUGY Scripting Forums:

RGSS2/Ruby Scripting Sections	Topic Threads	Total Posts
Complete RGSS2 Scripts	560	17,506
Learning Ruby & RGSS2	308	1,592
RGSS2 Scripting Language Support	2,055	7,899

Script Requests	3,009	13,380

Each of these sections breaks the dialog about these scripts into different sections of interest to different community members. The Complete RGSS2 Scripts section consists of a relatively small number of threads, with a considerable amount of responses. In these threads finished scripts are shared with the entire community for their use in the games they develop. The "Learning Ruby & RGSS2" sections are primarily where the self identified "scripters" discuss and collaborate to teach each other about writing code and share code snippets to refine their work. The Script Requests section is again much larger, and provides a area for the broader community to make requests from the scripters.

Divisions in the Community

Further evidence for the kinds of divisions that occur in this community around creative production can be found in the how members discuss the kinds of people that participate. Again, the following response comes from Sciaya.

> Stanza 4 *(Sciaya 19, female, Finland)*
> (1) The people who spend more time in certain areas of the community seem to develop certain kinds of "inside groups",
> (2) as they get to know each other better while chatting on same threads.
> (3) Due to that I would say that for example people at resource section
> (4)(both resource requesters and providers) form one group
> (5) and for example scripters form another.

The importance of the forum structure is visible in how Sciaya's explanation of how the site reinforces roles. She specifically identifies that the organization of the forums around production roles facilitates the identities of participants as resource creators (line 4) and scripters (line 5). In referring to sections of the forums as "areas of the community" in which individuals "spend more time" she has translated the structure of the forums into distinct social spaces (Line 1). The categories in the forums are not simply

a way of organizing content; they are a means for reinforcing and refining distinct roles based in

specific modes of creative production.

Growing and Learning in the Community

Each subsection, resource showcase, game development, and scripting, have their own

structures of participation, each supporting distinct kinds dialog about each element of production. Here

I discuss the response of a self-identified scripter as an example of how those interested in the

programming components of the site and community engage and advance. As the survey suggested,

this is frequently the first place participants engage with computer programming, making this role

particularly interesting. The following is the response of Mr. Bubble, a 24-year-old man from Portland

Oregon. The following response is part of his discription of how he became involved with the site.

Stanza 4 (Mr. Bubble, 24, male, Portland Oregon)
(1) To sum it up, there was a Japanese script that impressed me.
(2) It was being badly maintained.
(3) I took the reigns and decided to maintain the script myself.
(4) The translation of this Japanese script has considered good by the community
(5) and, for some reason,
(6) I rode the wave of this popular Japanese script and got recognition by helping lots of people regarding this script.
(7) If there's something unclear about this, let me know....I'm not actually a full-fledged coder, at least not yet.
(8) I chose to go into programming because of RPG Maker.

In the first stanza Mr. Bubble establishes his initial interest in the scripting component of the site

stemmed from how impressed he was by a particular Japanese script (Line 1). Citing the fact that it was

poorly maintained he "took the reigns" to maintain it (Line 3). In the process he notes that he received

recognition from other community members. Importantly, he attributes his interactions with the

community, the reinforcement and recognition he received, as serving a causal role in his decision to

identify himself as a programmer (Line 8). Through engagement with the community, and recognition

from the community, he has come to see himself as a programmer. This is a particularly strong example

of how the social interactions within the creative roles can shape how a participant sees themselves.

Discussion: Implications for Design of Learning Environments

The RPG Maker community site is providing young people with a space to develop a range of

digital media skills. I have argued that the structure and design of the site can provide a model for

thinking about designing other environments that support these skills. I specifically suggest that the

study of this community supports three principles for designing spaces around the social creation of

media.

Start With Learner's Interests and Basic Skills Will Come

As evidenced in interviews, community members identify the site as a place for learning.

Members are learning to program, becomeing better writers, exploring the world of game design, and in

always toward a specific end, to formulate, provide, and receive constructive criticism in the

development of their game projects. They are engaged in the practices and roles associated with game

design, and through those practices they are also developing a range of more basic skills. This is very

similar to what Gee refers to as the "Bottom-up Basic Skills Principle", that ,"what counts as a basic

skill is discovered bottom up by engaging in more and more of the domain or domains like it" (Gee,

2003, p. 136). This domain-based approach to competence is fundamentally compatible with

Sternberg's psychological model for understanding competence development in domains (2005). In this

model novices develop abilities into competencies and competencies into expertise. "At the heart of the

model is the notion that individuals are constantly in a process of developing expertise when they work

within a given domain" (Sternberg, 2005).

The lesson for the design of digital learning environments is to structure environments toward

meaningful creation of digital media. As these participants follow their interests in creating games they

are picking up a host of digital competencies, in this paper I have documented some of the programming skills members are developing, but I could similarly have documented the skills they are developing associated with giving and receiving feedback and criticism, project management, or any number of other skills embedded in the various roles participants take on.

Support a Diverse Range of Production Roles and Identities

A key part of this community is the way it enables participants to take on different roles and identities and see themselves as different "kinds of people." On one level there is a common component of identity, seeing ones self as an RPG enthusiast who could create or be involved in the creation of a game. Here I am referring to identity not as a single construct but a shifting sense of the "kind of person" one thinks of and presents one's self as. (Goffman, 1967 ; Coiro et al, 2008). In their proposed agenda for educational research related to Web 2.0, Greenhow et. al suggest the value of exploring the ways and types of identities young people develop with social media (2010). This research helps to document these processes.

The different parts of the site and community help to get participants as both similar and different kinds of people engaged in media creation. As the kind of people interested and engaged in creating RPGs as well as the kind of person associated with a particular production role. The lesson for the design of digital learning environments is that engaging learners in roles other than "student", roles that they themselves find interesting, is critical. Furthermore, as individual's interests are not identical, that a community of learners can function and thrive as a space where different individuals are invested in different roles for content production.

Simple Technical Systems Can Support Sophisticated Digital Learning Communities:

The RPG Maker VX community is powered by straightforward web forum software. One could argue the community does not have much to teach creators of sophisticated digital learning environments or software for supporting learning online. However, as the previous analysis suggests, there are some very significant kinds of learning occurring in this space. What is particularly interesting in this case is the way in which this very simple piece of social web software has been deployed to enable the kinds of sophisticated social structure and interactions that are the hallmark of this site.

Designers should take note that the structure of the learning environment corresponds directly to the roles and identities that the community promotes users to take on as producers. At the top level the forums break users into roles based on their individual interests, writing, programming, working with artwork and music. As the specific example from the scripting forums documents, within each of those subsections the forums further break down into spaces for conversations between the creators of those resources, in this case dialog between scripter, and spaces for dialog between the producers of the resources and their consumers, in the specific case between the scripter and community members interested in using their scripts in their games. In this respect the structure of the forums sections is intimately connected to supporting the kind of role and identity work and the mastery orientation that make the community thrive.

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