r/StardewValley

*Understanding Information, Sentiments, and Leisure in Online Communities*

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**Abstract**

This report investigates the social interactions and information flow in online communities. More specifically, this study has three guiding questions: (a) Why do people participate online? (b) How does online participation affect a user’s behaviour? and (c) How do online forums shape the dynamics of social interaction and, in turn, affect the definition of leisure as we know it today? In order to answer these questions, I utilized data mining and content analysis for an online forum called r/StardewValley. I collected the top 300 posts from January 2016 to July 2016 to understand the reoccurring themes and topics that members share with one another. The findings show that people in this community like to share positive experiences that are motivated by Exploratory Search (ES) rather than seeking informational resources from a Sensemaking perspective. The findings show that people participate mainly for ES, which in turn gives them personal development and positive relationships.

**Keywords**: Online forum, leisure, information studies, social dynamics, online communities
can create a bonding experience for users, through which they can be successfully integrated into communities of those sharing similar interests.

Online forums are used to share information and resources through member-created posts, where the posts are under a specific genre or type of community. Among other reasons for this, Walther (2013) suggests that online groups are employed to take advantage of individual disparate perspectives, and the divergent information that results from differences in their local contexts. Additionally, he adds that this diverse form of information (where content is contributed by all members) is critical for online groups. Processing this information uncovers potential benefits for the whole community. CMC has been an effective medium for ideas, knowledge, and opinions to develop from varied perspectives that ultimately helps the community members access the most comprehensive information.

While online forums foster information collected from diverse viewpoints that are deemed ‘resources’ for particular communities, experience and motivation from members can also be revealed through posts and comments. The differences between information-based and emotional-based responses can be explored further with concepts such as exploratory search (ES) and sensemaking. Wilson and Elsweiler (2010) define ES as an attempt to resolve an information need when the searcher has limited knowledge of goal, domain, or search system, whereas sensemaking bridges a specific knowledge gap. In other words, a user’s behaviour is considered ES when they have little direction as to why they are exploring information, whereas with sensemaking the user usually has a goal of searching information to gain knowledge. Wilson and Elsweiler also describe typical user motivations for the two types of searching. For ES, user motivation usually ranges from wanting to “kill time,” to wanting a distraction, to providing supportive entertainment value while performing a laborious task. Meanwhile, with sensemaking, users tend to have a problem or a clear goal in mind when searching for information. Both ES and sensemaking are prevalent in online forums. However, ES takes place in the form of casual-based searches, where users are able to find entertainment through the act of browsing and sifting through information; these users are less concerned with the quality of information retrieved from these sites.

Casual-based searches can also lead to personal development and new positive relationships, which are arguably more important than the information gained by sensemaking. Through casual-based searching activities, members of online forums can find like-minded individuals and form positive relationships that can result in positive personal development. Personal development affects the growth of an individual as a person and a personality (Stebbins, 2009). Stebbins conceptualises positive relations as a sustained, agreeable orientation by one person toward another, with both parties perceiving and reciprocating this agreeable orientation. Furthermore, he states that well-being is enhanced by positive relationships and by a diversity of interactive processes such as sharing humour, anecdotes, and useful or interesting information. Stebbin’s notion of positive relations similarly relates to the positive motivations and experiences that participants report when conducting a casual search. Furthermore, this type of association compares to the concept of “higher” things in life, which are usually positive.
human phenomena experiences (Kari & Hartel, 2007). In particular, I reference the “pleasurable” category from this concept, which refers to any act or experience a person subjectively desires to take part in, in order to obtain ‘delightful sensations.’

To relate this discussion back to my original questions, I am suggesting that the motivation behind people’s online participation stem from a higher interest in life. This implies that online participation affects the user’s behaviour through personal development and positive relationships. Furthermore, online forums become a medium that host ES and sensemaking, which then circulates resourceful information with emotion-provoking posts. These types of posts can then encourage positive social interactions. To ground these hypotheses in a real life example, I applied a data mining approach to an online forum. This research method offers insight into the types of information shared by an online community, and thus the type of information that would be found by participants in a casual-based search. By doing so, I gathered information about how individuals gain popularity and what people enjoy talking about in an online community. In particular, I employed this method by investigating the popular discourse within a sub community called r/StardewValley located in the popular online forum reddit. This project aims to use data mining to apply the hypothesis of positive motivations (over quality of information) as the primary reason for CMC engagement.

**Background and Methodology**

Stardew Valley is an independent farming simulation game where a player creates and customizes their character to take over their grandfather’s farm after leaving their office job. The player needs to execute skills such as time management and organization as they manage the character’s time and energy levels in order to expand and improve the farm. The character must choose seeds to plant, tend the crops, raise livestock, craft goods, mine for ores, and engage in social activities that include improving relationships with non-playable characters around town and even romance that turns into marriage, all the while earning in-game money.

While this is a single-player game, it has an online community named r/StardewValley with 60,969 members on the popular website called reddit. Reddit fosters discussions and resource-sharing for online communities; it is a space where individuals with pseudo identities are able to either communicate with each other or just gather information. By using data mining in r/StardewValley, I obtained insights about the most frequent themes people talk about in relation to the game. Additionally, the tone and type of post can be combined together with other factors to develop a more multifaceted approach to answering questions. Accordingly, investigating a small online community dedicated to a successful independent game will allow me to investigate online participation through the following research questions:

- What resources are usually circulated in these peer groups?
- What type of information do people like to share the most?
- What are the well-liked posts? What are the disliked posts?
Figure 1. An illustration of the hierarchy of type of post, tone, and topic that led to the content analysis for r/Starbound posts: a) When creating a new post, the Reddit member who creates the post chooses its type from several default options (and can only choose one); b) This variable was created by the researcher to complement the type of post chosen by the creator, who is restricted to choosing one option (some of which are copied from the type of post-creator); c) Tone describes the attitude encapsulated in the post; d) Topic describes the intent of the post, and categories were chosen from general topics that surround the game.
In order to mine the data, I divided the dependent and independent variables. The independent variables consist of the type, tone, and topic of each post. For a summary of the categories for each independent variable, see Figure 1. For the dependent variable, I measured popularity solely through the reddit voting system. Popularity is defined by the collection of social capital, which consists of the links, shared values, and understanding between participants in an online environment. There is a positive correlation between popularity and social capital where higher popularity means more cohesiveness within the group. In this situation, the higher the popularity score for each post, the higher the social capital (see Figure 2). I used this correlation in the r/StardewValley community to select the top 300 posts from the January to July of 2016 in terms of popularity. Figure 3 shows an example of how I applied this method to the top post from this time period. Then, I collected information on the independent variables for each of these posts.

Figure 2. Popularity of a post was measured through upvote/downvote score. Upvote/downvote score is the scoring system for every reddit post where each redditor (reddit member) can only vote once and they have a choice of voting a post positively or negatively. The rationale for using this is that a higher number indicates more popularity and acceptance from the online community.

Figure 3. An example of how content analysis was applied to one post, in terms of popularity points, comments, type of post, tone, and topic.
Results

A preselected set of categories is provided by reddit during the posting process that community members can use to describe their own posts. Figure 4 shows the most popular categories as chosen by the creators of the posts when they uploaded their posts. This graph shows that “Image” with 59% is the top category that creators like to upload in the community. While the second most popular category, “None” (18%), is very general, the third category is "Discussion" (11.67%), which encourages community members to talk to one another about a certain topic related to the game.

Figure 4. This looks at the percentage distribution for categories of posts in r/StardewValley as chosen by the creators of the posts.

Figure 5 shows the most popular types of posts in terms that supplement the categories chosen by the creator. This gives us a more holistic view of the category for each post. Accordingly, this graph shows that most of the posts sampled shared an experience with the game (31.47%), shared certain things that are considered funny (18.97%), and showed something created by community members astributes to the game, shown as “Fan-Made” (11.21%). Note that “Fan-Art” is a branch of “Fan-Made,” but has been included as a separate category due to its popularity. The information-heavy posts, which are usually in the form of “News” (6.47%), “Suggestion” (6.03%), and “Resource” (7.33%) (where “Resource” is the type of information used in sensemaking), make up 19.83% of the top 300 posts.
Figure 5. Type of Posts as described by the researcher when looking at the top 300 posts for r/StardewValley.

Figure 6 illustrates the distribution of tone for the top 300 posts. These popular posts were most often Light-Hearted (22%) and Earnest (20%). The majority of these posts had positive tones, with Happy, Earnest, and Light-Hearted posts making up 55% of the sample. Meanwhile, neutral posts such as Objective (12%) and Didactic (13%) come in with 25% all together. These neutral tones usually are associated with more resource-based posts, while the positive tones are usually associated with shared experiences and fan-art pieces.

Figure 6. The percentage distribution of different kinds of tones in each of the top 300 posts.
Lastly, Figure 7 illustrates the topics people like to talk about in the online community. Most posts tend to be about the “Characters” with 23.96%, while “Farm” (12.96%) and “Appreciation” (10.63%) come in second and third place respectively. However, these two categories have a small lead when compared to the next four most popular topics: Real Life (8.54%), Activities (7.71%), Relationship (7.71%), and Gameplay (7.50%).

The content analysis worked in such a way as to allow for each post to be described using multiple categories of type, tone, and topic. This means that, even if “Characters” was the most frequently seen topic, it may not necessarily be the most frequent topic when looking at topic combinations. For example, posts that combine “Characters” with “Relationship” are seen more often than posts about “Characters” alone. Posts solely about the topic “Farm” show up the most out of all possible topic combinations for the 300 posts. This is because the category “Characters” is usually combined with “Relationship” or “Appreciation.”

Table 1 combines the most frequent type of posts from the post creator and researcher. Most post type combinations involve the topic “Image” from the post creator, which occurs 59% of the time. Meanwhile, “Funny,” “Shared Experience,” and “Fan-Made” are the top three ranked categories from the researcher. One thing to note is how “Discussion” posts are usually also “Suggestions,” implying that most popular discussions in the online forum like to talk about suggestions for improving the game.

Table 2 shows what topic combinations show up most often in the top 300 posts. As stated earlier, even if “Characters” is the most frequently occurring topic, it is usually combined with other topics such as “Relationship” and “Appreciation.” Accordingly, most standalone posts are about people sharing their farms. Farms are customizable, and therefore each player can personalize their farms the way they
Table 1. Top ten combinations of post types, including categories from both post creators and the researcher, for the top 300 posts on r/StardewValley from January to July of 2016.

<table>
<thead>
<tr>
<th>The Top 10 Post Type Combinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Image, Shared Experience, Funny</td>
</tr>
<tr>
<td>2. Image, Shared Experience</td>
</tr>
<tr>
<td>3. Image, Fan-Made</td>
</tr>
<tr>
<td>4. Discussion, Suggestion</td>
</tr>
<tr>
<td>5. Image, Shared Experience, Resource</td>
</tr>
<tr>
<td>6. Image, Funny</td>
</tr>
<tr>
<td>7. Image, Resource</td>
</tr>
<tr>
<td>8. Fan Art, Fan-Made</td>
</tr>
<tr>
<td>9. Discussion, Shared Experience</td>
</tr>
<tr>
<td>10. Image, Suggestion</td>
</tr>
</tbody>
</table>

Table 2. Most frequent topic combinations for the top 300 posts in r/StardewValley from January to July of 2016.

<table>
<thead>
<tr>
<th>The Top 10 Topic Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Farm</td>
</tr>
<tr>
<td>2. Characters, Relationship</td>
</tr>
<tr>
<td>3. Gameplay</td>
</tr>
<tr>
<td>4. Characters, Appreciation</td>
</tr>
<tr>
<td>5. Appreciation</td>
</tr>
<tr>
<td>6. Characters</td>
</tr>
<tr>
<td>7. Real Life</td>
</tr>
<tr>
<td>8. Activities</td>
</tr>
<tr>
<td>9. Appreciation, Real Life</td>
</tr>
<tr>
<td>10. Characters, Activities</td>
</tr>
</tbody>
</table>

want. Players also have the choice to pick whom to marry, and each character has their own personality. Therefore, the second top combination usually is about people sharing romantic experiences with game characters.

Analysis

Most of the popular posts have a positive and cheerful inflection with the major tones reflecting a “Light-Hearted,” “Earnest,” and “Contemplative” nature. Participants in this online community prefer to talk about the characters, their farm, or their mutual appreciation of the game. Since this research
method allows multiple categories to be applied to one post, there can be several combinations for each independent variable. As stated in the Results, the top post type combinations include “Image” and “Shared Experience.” Meanwhile, the top tone combination is “Light-Hearted,” and the dominant topic refers to the “Farm.” Therefore, the top overall combinations are “Image,” “Fan-Made,” “Earnest,” “Appreciation,” and “Image,” “Shared Experience,” “Light-Hearted,” and “Character.”

Applying this to our research questions, we may conclude the following:

**What sensemaking information resources are usually circulated in these peer groups?**

According to the insights mined from the data, the most frequently circulated resources that can be used for sensemaking are posts that include an image and resource posts that have a didactic tone, informing other users about the farm or other tips in the game. However, these types of resources are in the top 9 and top 10 for the overall combinations. Sensemaking resources are considered information-heavy content that satisfies sensemaking goals. Seeing these resources in ranks 9 and 10 shows that the community members do not as frequently use the online forum to satisfy sensemaking activities.

**What type of information do people like to share the most?**

The type of information individuals in the community are most likely to circulate are images, shared experiences, humour, and fan-art posts. The tones are commonly earnest and light-hearted and the content generally references the characters, farms, or appreciation for the game. These types of light-hearted and emotional content comply more with ES, suggesting that people usually are in these forums for ES purposes.

**What are the well-liked posts and what are the least liked posts?**

The most popular posts correlate with the information people like to share the most. Most points are awarded to the funny, original posts—anything with a positive tone. As stated above, these posts are considered to be part of ES. This means that positive posts are the most favourable interactions within the community. Thus, I propose that the social dynamics between members is driven through personal development and positive relationship motivations.

**What do people like to talk about? What do people like to read about in the online forum?**

In general, this report shows that if the motivation behind online participation stems from a higher interest in life, this implies that online forums become a medium to foster personal development. This report also suggests that the quality of information and resources gained from online forums are secondary to the pleasurable experience gained by participants navigating this medium.

This report highlights that positive tones, shared experiences, and images tend to dominate the top 300 posts between January and July 2016 for the online forum, r/StardewValley. This implies that the community tends to favour those who discuss aspects of the game in a positive manner. The
The proliferation of positive posts suggests that r/StardewValley may be a medium that can foster personal development. The first part of my hypothesis postures that online participation happens mainly due to user interest in satisfying and improving life goals through participation in more pleasurable activities. The insights retrieved from the analysis of the Stardew Valley reddit thread corroborated this portion of the hypothesis.

Moreover, the community also prefers reading shared experiences and funny posts (50.44% of the posts) as opposed to resources and news (13.8% of the posts). Note that the resource and news posts bring the most objective information to the users. This positively correlates with the latter portion of my hypothesis, which suggests the quality of information and resources gained from these online forums is not a priority. Rather, it is the pleasurable experience of navigating the posts, such as bonding with the community members through a shared game experience or enjoying a laugh from a humorous post, that becomes the main reason for an individual’s casual search.

An online forum is a form of CMC and an information-sharing environment all at once. There is the notion that the fundamental nature of online forums feed negativity due to disinhibition and anonymity (Lapidot-Lefler & Barak, 2012). This means that more users will be more hostile to one another because their real identities are not compromised in the web space. Meanwhile, there is an argument that CMC cultivates positive environments as people who share similar interests are able to come together, bond about their experiences, and share information with one another (Amichai-Hamburger et al., 2012). The top posts in r/StardewValley showed that more positive posts are being shared and voted on by the community, which supports the second notion, that CMC provides a positive space. Therefore, this shows that people would rather read about shared experiences and funny posts over informative resources, which supports the notion that the community members prefer a pleasurable experience over high quality information. Moreover, this supports the notion of online forums hosting positive spaces that allow personal development and relationships with one another. This is only one online community, however, and the context of different online forums may attract different demographics, which can change the tones and posts for its users. Similar research still needs to be done for different communities to look at what factors may change the nature of an online community.

The r/StardewValley Leisure Conundrum: Serious or Casual Leisure

Casual leisure is defined as an immediately, intrinsically rewarding, relatively short-lived pleasurable activity requiring little or no special training to enjoy (Stebbins, 1997). Having motivations such as the desire to “kill time” by reading small snippets of conversations, spending a small amount of time looking over the content, and reading the discussion could be described as hedonistic—all of which are similar motivations for Exploratory Search. Accordingly, participants who feel bored can take out their computer or mobile device to browse r/StardewValley. They can look at the content under “what’s hot” or “top” to find posts that are deemed interesting by other users. Afterwards, these users
gain small bits of information and pleasurable experiences such as laughter or amusement. This case shows how browsing and reading posts in online forums is a form of casual leisure as people pass the time and gain knowledge, which is a form of a small intrinsic reward.

But if we revisit the definition of serious leisure and apply it to online forums users, we may also find a positive correlation. Serious leisure can be broken into a checklist (Stebbins, 1982):

- **Need to persevere**: Some users may have to look through several posts in order to find an entertaining enough post to gain pleasure, which would require time and patience.

- **Stages of achievement**: Reddit has a popularity system where upvotes, a way for people to show that they like a post, increase a score counter on a user’s profile. Many users feel rewarded if their posts have a significant number of upvotes and comments. This type of user is more likely to interact with other users in online forums rather than solely browse for content.

- **Personal Effort**: For r/StardewValley, there are many posts, including Funny and Fan-Made ones, that aim to rouse laughter and appreciation from the audience. These users have specialized knowledge about the game and have put in the work to create quality content. An example of this personal effort is a fan who crocheted Junimo (a character) plushy toys.

- **Self-Expression, social interaction, belongingness**: Positive relationships enhance positive sociology and personal development (Stebbins, 2009). Participating in r/StardewValley where a user interacts with another user to share experience and information illustrates social interaction. The sense of community and belongingness can be quantified through the number of comments and popular votes, as well as “Meta” posts that talk about the r/StardewValley social world itself.

- **A unique ethos**: r/StardewValley is a subculture that was developed from playing a single-player game. But to further this point of view, reddit users can upvote or downvote a post, so that a post with a negative score will have a hard time being visible to the community. As the top types, tones, and topics of posts from r/StardewValley have been established, those who do not conform to those categories may not be as well-received.

- **Identity**: This can be controversial as r/StardewValley is an established community where people who choose to subscribe to it are members of the online forum. There is no data about whether people who felt like reading and posting in the community changed their identity, but there is also none that says it does not affect them. This question may be used as another research project that needs to be explored.

Two types of users are revealed after comparing different user activity in r/StardewValley with casual leisure and serious leisure concepts: 1) those who solely read and browse, and 2) those who create content and participate in discussions. The former looks at the content, but does not fulfill all of the points necessary for serious leisure. In order to pass as users in the serious leisure stream, they would have to create a post or interact with users in the community.

To further distinguish these two types of users, I would look to Unruh’s four types of involvement (1979). In particular, I would look at the “tourists”, “regulars”, and “insiders”. Tourists are reasonably
aware of the social world but are not committed to that world as it remains entertaining, profitable, or diversionary. “Regulars” are habitual participants who are integrated into the social world’s ongoing activities and have a significant degree of commitment to their social world through good times and bad. “Insiders” are those who focus on creating and sustaining activities for other participants, recruiting new actors, and having intimate knowledge of social world activities. They are the ones who “construct or expand the social world and have the most to gain or lose when a social world succeeds or fails” (Unruh, 1979).

The term “tourists” can be applied to users who solely browse and read the content. They do not need to participate in discussions or even upvote/downvote contents. They do not even need to be a member of the subreddit community as long as they know that it exists. By this definition, “tourists” are definitely the user-type that supports the argument that browsing and searching through online forums is a form of casual leisure. Meanwhile, “insiders” can be seen carrying out all the examples mentioned above under serious leisure. They create posts, participate in discussions, and even use their specialized knowledge to put more effort and time into creating content that will get them the most points (upvotes). The “regulars” are a blurred category; they can browse, participate, and sometimes comment enough that it goes further than casual leisure and can be considered serious leisure in certain situations. This relates back to the original question: How do online forums change people’s social interaction and in turn, affect the definition of leisure as we know it today? This report showed that casual and serious leisure can both be applied in the same context.

Conclusion

By examining the r/StardewValley forum via data mining, I can conclude that people’s motivations behind online participation are often emotional, as evidenced by the fact that information that complies with ES is more popular than information associated with sensemaking. Moreover, participation where personal development and social relationships are the forefront reasons allow online forums to reciprocate an environment of positive social interactions. There are different extents of participation in online forums where people range from “tourists” and “regulars”, who lean towards casual leisure, to “insiders” taking part in serious leisure. However, the information they contribute and receive from forums complements my hypothesis that people participate mainly for ES, which in turn gives them personal development and positive relationships.

References


