

Abstract

The purpose of this study is to discern and evaluate the attributes of a Social Media Website that lead to its overall User Satisfaction, utilizing Gamification Theory. This will be accomplished through the use of popular social media website *Reddit.com* and Google Chrome Extension *Stylish*, as well as some CSS programming. With the elimination of targeted aspects of the *Reddit.com* main page theme, we can discern which "Game" aspects promote a higher user satisfaction within a sample pool of users. Users will be given a questionnaire upon completing a use of the modified theme that measures the user's satisfaction.

Background

The popular media site, *Reddit.com* was founded in 2005 by two University of Virginia graduates; Steve Huffman and Alexis Ohanian [1].

Reddit.com is a popular Entertainment, News, and Social Networking site where registered users can create content, enroll in subreddit communities, and interact with other registered users. As well as vote submitted posts up or down. These up-votes and down-votes, called *Reddit Karma*, are tallied for each user showing their overall *Karma Score*. *Reddit Karma* is used to rank a post in a given subreddit; the higher a post's *Karma* score, the more likely it is to be seen.

Reddit.com is composed of a multitude of specialized subreddit pages. Subreddits are communities dedicated to a certain topic or area of interest. Users can *Subscribe* to these communities to stay up to date on content submitted within.

Users also receive specialized icons next to their username. These icons not only appear on special dates (i.e. Birthdays) but can also be given via the use of *Reddit Gold*. *Reddit gold* can be purchased online via *Bitcoin*, *Paypal*, or *Credit Card* and is used as a source of funds for the website.

Reddit.com is an open source project originally written in *CommonLisp* but transposed to *Python*. The Site is hosted on *Amazon Web Services* and utilizes *Amazon's CloudSearch*.

Reddit.com has over 7.5 billion monthly page views as well as over 160 million unique monthly visitors [2].

Approach

Gamification, a modernly coined term to describe Incentive Centered Design (ICD) involves the application of Game Theory and Game Mechanics to non game systems and applications. The goal of Gamification is to promote determined positive outcomes through the use of incentives and reinforcements, both tangible and intangible [3].

Reddit.com is a great example of popular public gamification. *Reddit* utilizes 3 of the most common gamification techniques; Validation, Completion, and Prizes. Validation being the largest technique used on the site via the use of *Reddit Karma* [3].

Approach Cont.

For this study 4 *Reddit* templates were developed with the use of Google Chrome and Firefox extension, *Stylish*. *Stylish* allows users to create CSS templates that modify or alter a target web page. These templates modify or delete .css and .html targets on the webpage, allowing users to create unique webpage experiences.

The 4 *Reddit* templates in this study aimed to target and eliminate key gamification elements already used on the website. The templates are as follows; *Reddit Newspaper*, *No Competition*, *No Social*, and a control template called *Reddit Prime*. Users were asked to use each template for a normal *Reddit* usage session then take a corresponding survey related to the template.

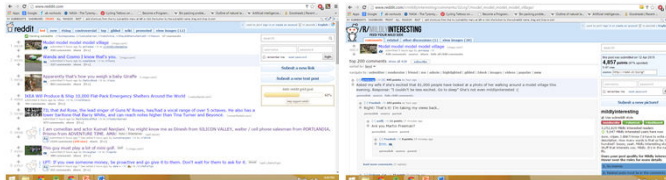


Figure 1. *Reddit Template "Reddit Prime"*
This Template was used as the control group. There are zero modifications to *Reddit.com*

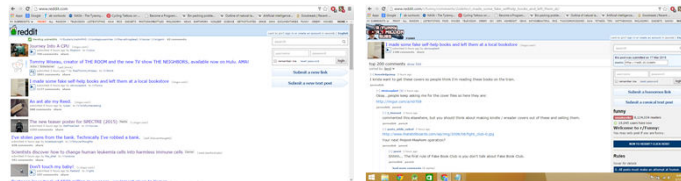


Figure 3. *Reddit Template "No Competition"*
This Template removes all competitive elements from *Reddit*, specifically *Reddit Karma*, rank of posts, and access to Leaderboard pages.
This template is designed to remove all validation techniques.

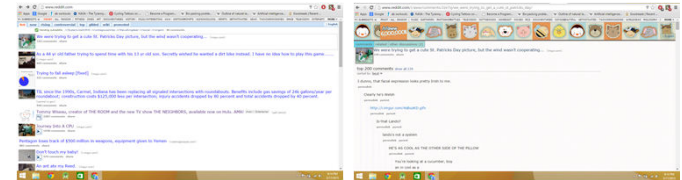


Figure 2. *Reddit Template "Reddit Newspaper"*
This Template removes; *Reddit Gold*, *Reddit Karma*, User login option, as well as post rank. This template is designed to be simplistic and one directional. Users can only visit, comment, and share posts.



Figure 4. *Reddit Template "No Social"*
This template removes all social elements from *Reddit* including; User login (identity) and *Reddit Karma*.

Results

There were a total of 21 participants that partook in the study. After the usage of a given *Reddit* template, a short survey was taken. Figures 5, 6, and 7 show data gathered from 3 of the 6 questions asked. Participants were also asked; Would you recommend this Style to a friend, of which 33% of participants said they were very likely to recommend the "Reddit Newspaper" template. Participants were also asked; "Would you consider this *Reddit* Style easy to use?" of which, 57% of participants said the "Reddit Newspaper" template was easiest to use. Finally, participants were asked "Did this *Reddit* Style deliver desirable content" of which, the "Reddit Newspaper" template scored the highest with 52%.

Participants were also given the option to leave a comment. Comments ranged from praise or disapproval for the addition or removal of content to blatant sarcasm.

Q1. How likely is it that you would use this <i>Reddit</i> Style?								
	Not Likely (1)	Somewhat Likely (2)	Neutral (3)	Somewhat Likely (4)	Very Likely (5)	Total	Weighted Average	Standard Deviation
Control	1 (4.76%)	2 (9.52%)	3 (14.29%)	9 (42.86%)	6 (28.57%)	21	3.81	1.10
Reddit Newspaper	1 (4.76%)	0 (0.00%)	2 (9.52%)	8 (38.10%)	10 (47.62%)	21	4.24	0.97
No Competition	3 (14.29%)	5 (23.81%)	8 (38.10%)	4 (19.05%)	1 (4.76%)	21	2.95	1.09
No Social	4 (19.05%)	3 (14.29%)	7 (33.33%)	5 (23.81%)	2 (9.52%)	21	2.76	1.27

Figure 5. Question 1 Results

Q3. Was the <i>Reddit</i> Style Preferable to the normal <i>Reddit</i> Style?								
	Terrible (1)	Bad (2)	Undecided (3)	Good (4)	Great (5)	Total	Weighted Average	Standard Deviation
Control	0 (0.00%)	0 (0.00%)	10 (47.62%)	8 (38.10%)	3 (14.29%)	21	3.67	0.71
Reddit Newspaper	0 (0.00%)	2 (9.52%)	4 (19.05%)	8 (38.10%)	7 (33.33%)	21	3.95	0.95
No Competition	1 (4.76%)	5 (23.81%)	11 (52.38%)	2 (9.52%)	2 (9.52%)	21	2.95	0.95
No Social	2 (9.52%)	5 (23.81%)	7 (33.33%)	5 (23.81%)	2 (9.52%)	21	2.95	1.05

Figure 7. Question 3 Results

Q2. Rate the overall experience of the <i>Reddit</i> Style?								
	Terrible (1)	Bad (2)	Undecided (3)	Good (4)	Great (5)	Total	Weighted Average	Standard Deviation
Control	0 (0.00%)	0 (0.00%)	1 (4.76%)	13 (61.90%)	7 (33.33%)	21	4.29	0.55
Reddit Newspaper	0 (0.00%)	0 (0.00%)	2 (9.52%)	12 (57.14%)	7 (33.33%)	21	4.34	0.61
No Competition	1 (4.76%)	3 (14.29%)	13 (61.90%)	4 (19.05%)	0 (0.00%)	21	3.76	0.81
No Social	0 (0.00%)	3 (14.29%)	8 (38.10%)	6 (28.57%)	4 (19.05%)	21	3.43	0.90

Figure 6. Question 2 Results

Discussion

The data gathered fulfilled the goal of study however, in the future a controlled/compensated sample group should be utilized to encourage accurate and consistent results. Also, the sample pool size for this study was sufficient but in the future a larger sample pool (100-200) participants should be utilized to encourage diverse responses.

This research has the ability to be used in any area where gamification techniques are applied. The goal of this study was to shed light on which gamification techniques are most valued in a user experience. The data collected accomplishes this goal and begins to point gamification applicators in the best direction.

The template for this study, eliminating targets from a target site, could be utilized by websites and companies to gauge how their users perceive their site, or as a means to test new updates to their user website and gauge user interest. A lean model for webpage development.

References

- [1] Macale, Sheryllynn. "A Rundown of *Reddit*'s History and Community [Infographic]." *TheNextWeb*. *TheNextWeb.com*, 11 Oct. 2014. Web. 12 Apr. 2015. <http://thenextweb.com/socialmedia/2011/10/14/a-rundown-of-reddits-history-and-community-infographic/>
- [2] "About *Reddit*." *Reddit.com/about/*. *Reddit.com*. Web. 13 Apr. 2015. <<http://www.reddit.com/about/>>
- [3] Kelly, Tadhg. "Everything You'll Ever Need To Know About Gamification." *Everything You'll Ever Need To Know About Gamification*. *TechCrunch*, 17 Nov. 2012. Web. 13 Apr. 2015. <<http://techcrunch.com/2012/11/17/everything-you-ll-ever-need-to-know-about-gamification/>>

