How ‘Social’ are Social News Sites?
Exploring the Motivations for Using Reddit.com

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CIS brown bag lunch talk
September 12, 2014
Active discussions on nearly any topic imaginable.
Subreddits are communities focused on a specific topic.
Requesting favors from other redditors (= Reddit users)
I am Barack Obama, President of the United States -- AMA (self.IAmA)
submitted 1 year ago by PresidentObama

Hi, I'm Barack Obama, President of the United States. Ask me anything. I'll be taking your questions for half an hour starting at about 4:30 ET.
Proof it's me: https://twitter.com/BarackObama/status/240903767350968320
We're running early and will get started soon.

UPDATE: Hey everybody - this is barack. Just finished a great rally in Charlottesville, and am looking forward to your questions. At the top, I do want to say that our thoughts and prayers are with folks who are dealing with Hurricane Isaac in the Gulf, and to let them know that we are going to be coordinating with state and local officials to make sure that we give families everything they need to recover.

Verification photo: http://i.imgur.com/o2oa7.jpg

LAST UPDATE: I need to get going so I'm back in DC in time for dinner. But I want to thank everybody at reddit for participating - this is an example of how technology and the internet can empower the sorts of conversations that strengthen our democracy over the long run. AND REMEMBER TO VOTE IN NOVEMBER - if you need to know how to register, go to http://gottaregister.com. By the way, if you want to know what I think about this whole reddit experience - NOT BAD!
http://www.barackobama.com/reddit [edit: link fixed by staff]
Sick of all the lame, cheesy, and generic love cards? Us too.

ELI5: The Amanda Knox Appeal
submitted 6 days ago by Dropbear81 - stickied post
160 comments share

ELI5: Do people reviewing alcoholic beverages really taste all the wacky things they claim to?
submitted 20 hours ago by TheNCGoalie
1454 comments share

ELI5: Why do we have dominant limbs (Right handed left handed)?
submitted 6 hours ago by neuteredcatdog
27 comments share

ELI5: Why are some paintings that look like a bunch of random blotches and lines given such praise?
submitted 8 hours ago by t0f0b0
30 comments share

How does someone "throw" their voice?
submitted 9 hours ago by idrinkice
8 comments share

ELI5: How do we know how long light has been traveling from a star until it reaches earth?
submitted 1 day ago by SingularityGuy
253 comments share

ELI5: How is Sochi so unprepared if they've had years to get ready?
submitted 8 hours ago by lankwaye77
19 comments share

ELI5 The concept of making your bed, only to mess it up again.
submitted 6 hours ago by livelylysins96
22 comments share

Explaining complex issues like one would to a five-year-old

ELI5: The difference between Miles and Nautical Miles and why we need two

ELI5: Why does ice melt faster in a thin glass than a thick glass?

ELI5: What is the difference between a sprite and an electric blue object?
Outline

• Introduction

• Related work

• Methodology
  - Framework of motivational factors
  - Survey creation & deployment

• Results

• Discussion & conclusions
Introduction

• **Social news sites** allow users to **submit**, **discuss**, and **vote** on news stories and websites

  - Popular alternative to online newspapers → 🐦reddit was 68th most popular website in the world in January 2014 according to Alexa

• But what **motivates** users to participate on social news sites?

  - Is it the power to help determine **which stories make it to the front page**?
  
  - Or the possibility to **contribute** news stories?
  
  - Or perhaps the **social aspect** of connecting and discussing with like-minded users?
Contributions of this work

1. Comprehensive literature review of motivations for online user participation

2. Organization of motivational factors into coherent framework

3. Empirical validation of framework through survey deployed on Reddit.com
Related work

• Motivations for participating on social news sites
  - Lerman (2007) and Halavais (2009) analyzed posting dynamics on Digg.com
  - Found that **positive feedback** and **recognition** was important for continued participation; **weak ties** were more valuable for this than friendship relations

• Other relevant fields of study
  - Social media (e.g., social networks like Facebook)
  - Online communities (e.g., mailing lists)
  - Online collaboration (e.g., Wikipedia)
  - Social psychology & sociology (e.g., Milgram)
  - Behavioral economics (e.g., Maslow)
Motivational framework

- We constructed our motivation framework as follows

  - Collected a set of 55 snippets and quotes from the reviewed literature

  - **Paired card-sorting** to group snippets into **26 motivational factors**

  - Further grouping identified **seven mid-level categories**

  - Final grouping produced **four top-level categories**

    - **Personal** (P)
    - **Social** (S)
    - **Informational** (I)
    - **Website characteristics** (W)
Motivational framework

- **Personal**
  - Self-promotion & reputation
    - Self-promotion
    - Social exchange
    - Reputation
    - Status
    - Personal growth
  - Recreation
    - Curiosity
    - Entertainment
    - Procrastination
    - Making new friends
  - Friendship
    - Social filtering
    - Presence of friends
    - Following friends
  - Community
    - Trust
    - Socializing
    - Group identity
    - Group size
  - Consumption
    - Information consumption
    - Information quality
    - Shopping
  - Exchange
    - Information quantity
    - Information sharing
    - Debating
  - Website characteristics
    - Functionality
    - Chatting
    - Credibility
    - Usability

**Notes:**
- P.1: Self-promotion
- P.2: Social exchange
- P.3: Reputation
- P.4: Status
- P.5: Personal growth
- P.6: Curiosity
- P.7: Entertainment
- P.8: Procrastination
- S.1: Social filtering
- S.2: Presence of friends
- S.3: Following friends
- S.4: Making new friends
- S.5: Trust
- S.6: Socializing
- S.7: Group identity
- S.8: Group size
- I.1: Information consumption
- I.2: Information quality
- I.3: Shopping
- I.4: Information quantity
- I.5: Information sharing
- I.6: Debating
- W.1: Functionality
- W.2: Chatting
- W.3: Credibility
- W.4: Usability
Survey development

• Empirical validation of motivation framework through a survey

• Survey consisted of six parts

  - Activity level
    ‣ Reddit user profile, active voting/commenting/posting behavior?

  - Four parts, corresponding to each of the four top-level categories
    ‣ Questions corresponding to each of the 26 factors
    ‣ Open comment fields were included after each of these five parts

  - Demographics
    ‣ Gender, age, country of origin
Survey deployment

- Survey deployed on Reddit.com
  - Most popular social news site → 3.4 billion page views in August 2012

- Request for survey participation posted to relevant subreddits
  - Very active removal of off-topic posts from subreddits
  - Posted to five subreddits with ~120,000 subscribers
    - Assistance, Favors, SampleSize, Self, and SocialMedia
  - 282 responses in a two-week period
    - 97% of respondents answered within 5 days
Results: Demographics

- Distribution very similar to 2011 survey of 32,756 Reddit users

- **Country of origin**
  - US: 65%
  - Canada: 12%
  - Australia: 2%
  - UK: 6%
  - Other: 15%

- **Age**
  - < 24 yrs: 59%
  - 25-34 yrs: 32%
  - 35-44 yrs: 6%
  - > 45 yrs: 3%

- $N = 279$
• Based on work by Nonnecke & Preece (2000), Reddit users in our survey are more active than expected → still good generalizability
## Results: Framework validation

### Chart 1: Distribution of Responses

<table>
<thead>
<tr>
<th>Category</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entertainment (P.7)</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Curiosity (P.6)</td>
<td>Agree</td>
</tr>
<tr>
<td>Information quantity (I.4)</td>
<td>Neutral</td>
</tr>
<tr>
<td>Procrastination (P.8)</td>
<td>Disagree</td>
</tr>
<tr>
<td>Usability (W.4)</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Debating (I.5)</td>
<td>Agree</td>
</tr>
<tr>
<td>Information consumption (I.1)</td>
<td>Neutral</td>
</tr>
<tr>
<td>Shopping (I.3)</td>
<td>Disagree</td>
</tr>
<tr>
<td>Information quality (I.2)</td>
<td>Neutral</td>
</tr>
<tr>
<td>Functionality (W.1)</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Social exchange (P.2)</td>
<td>Agree</td>
</tr>
<tr>
<td>Credibility (W.3)</td>
<td>Neutral</td>
</tr>
<tr>
<td>Group identity (S.7)</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Socializing (S.6)</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Self-promotion (P.1)</td>
<td>Agree</td>
</tr>
<tr>
<td>Trust (S.5)</td>
<td>Neutral</td>
</tr>
<tr>
<td>Information sharing (I.6)</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Group size (S.8)</td>
<td>Disagree</td>
</tr>
<tr>
<td>Social filtering (S.1)</td>
<td>Agree</td>
</tr>
<tr>
<td>Reputation (P.3)</td>
<td>Agree</td>
</tr>
<tr>
<td>Presence of friends (S.2)</td>
<td>Disagree</td>
</tr>
<tr>
<td>Personal growth (P.5)</td>
<td>Strongly disagree</td>
</tr>
<tr>
<td>Making new friends (S.4)</td>
<td>Agree</td>
</tr>
<tr>
<td>Chatting (W.2)</td>
<td>Strongly agree</td>
</tr>
<tr>
<td>Status (P.4)</td>
<td>Agree</td>
</tr>
<tr>
<td>Following friends (S.3)</td>
<td>Agree</td>
</tr>
</tbody>
</table>
### Results: Strong motivating factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Median Score</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entertainment (P.7)</td>
<td>70</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curiosity (P.6)</td>
<td>60</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information quantity (I.4)</td>
<td>50</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Procrastination (P.8)</td>
<td>50</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usability (W.4)</td>
<td>50</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debating (I.5)</td>
<td>40</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information consumption (I.1)</td>
<td>30</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shopping (I.3)</td>
<td>20</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information quality (I.2)</td>
<td>20</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functionality (W.1)</td>
<td>20</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social exchange (P.2)</td>
<td>20</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credibility (W.3)</td>
<td>10</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group identity (S.7)</td>
<td>10</td>
<td>Strongly agree</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Top five factors all have a median score of 5 (‘Strongly agree’).
Results: Strong motivating factors

- **Entertainment** (P.7)
- **Curiosity** (P.6)
- **Information quantity** (I.4)
- **Procrastination** (P.8)
- **Usability** (W.4)
- **Debating** (I.5)
- **Information consumption** (I.1)
- **Shopping** (I.3)
- **Information quality** (I.2)

**Examples of quotes:**

- "I don't really use it for a social factor. It's more entertainment."
- "It cures my boredom."
- "I use Reddit to procrastinate."
- "I use reddit because it is fun."
- "Reddit seems to trigger in my brain the release of positive chemicals. I seem to use it much like a smoker would a cigarette."
Results: Strong motivating factors

“I like how simple it is for a noob like me to use. Seriously, that’s an accomplishment.”

“I enjoy the wide range of content, it keeps me entertained for much longer than a site dedicated to a single type of content.”
Results: Strong motivating factors

Next seven factors have a median score of 4 (‘Agree’)
“With 19 million users (I think) there's almost no news story that doesn't have an eyewitness on reddit. The difference between reading what a reporter who showed up after the fact wrote and somebody who can honestly say, 'I was there...' is very powerful.”

“...I use it to get the world news.”

“I use Reddit to follow niche news- news about things that are important to me but aren't important enough to a wide enough audience for the stories to end up in mainstream channels.”
Results: Strong motivating factors

“The customization, specifically the idea of subreddits and smaller communities about specific topics, is the largest reason why I use Reddit.”

“I am very glad I can customize it so that subreddits I find very distasteful and offensive never show up and are in no way a part of my online experience.”

“At least it's not Fox News.”

Strongly agree  Agree  Neutral  Disagree  Strongly disagree
Results: Weak motivating factors

These factors have a median score of 2 or lower (‘Disagree’ or ‘Strongly disagree’)

- Socializing (S.6)
- Self-promotion (P.1)
- Trust (S.5)
- Information sharing (I.6)
- Group size (S.8)
- Social filtering (S.1)
- Reputation (P.3)
- Presence of friends (S.2)
- Personal growth (P.5)
- Making new friends (S.4)
- Chatting (W.2)
- Status (P.4)
- Following friends (S.3)
"I use Reddit when I am avoiding thinking about things which I know need addressing. It’s a terrible coping mechanism and I was a better person five years ago before I ever knew it existed."

"I don't post comments that often nor do I post my views on certain subjects. I'm afraid of being downvoted, it makes me feel bad. I'm also afraid of people being rude or belittling me."
Results: Weak motivating factors

- Socializing (S.6)
- Self-promotion (P.1)
- Trust (S.5)
- Information sharing (I.6)
- Group size (S.8)
- Social filtering (S.1)
- Reputation (P.3)
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**Results: Weak motivating factors**

- **Socializing** (S.6)
- **Self-promotion** (P.1)
- **Trust** (S.5)
- **Information sharing** (I.6)
- **Group size** (S.8)
- **Social filtering** (S.1)
- **Reputation** (P.3)
- **Presence of friends** (S.2)
- **Personal growth** (P.5)
- **Making new friends** (S.4)

- **For**
- **Strongly agree**
- **Agree**
- **Neutral**
- **Disagree**
- **Strongly disagree**

- "I don’t have any social motivations for using Reddit. If anything my experience with Reddit regarding social interaction has been negative."

- "Reddit is not welcoming, it does not feel like a group. It is very judgmental and I rarely feel comfortable."

- "If my friends became active Redditors I would become less inclined to use the site."

- "I like Reddit specifically because nobody I know uses it."
Discussion

- People use Reddit to be entertained!
  - Recreational value combined with the customization possibilities and the amount of information on Reddit are valued most by its users

- So how ‘social’ are social news sites? Answer: not very!
  - Social motivators consistently valued as (relatively) unimportant
    - Especially true for friendship-related factors

- Difference between online newspapers and social news sites due to influence over reception and placement of news stories
  - Massive effort put into all kinds of social features might be misguided...
Discussion

• Possible caveat
  - Survey participants were more active than should be expected!
  - Lurkers are most likely underrepresented in our survey
  - However, social features require the most effort of all factors
    ‣ Lurkers are probably even less likely to be motivated by social factors!

• Future work
  - Thorough content analysis of the comments collected
  - Triangulation of our findings by crawling interaction data for 86 participants who allowed their Reddit activity to be crawled
Collaboration possibilities

• Reddit contains an enormous amount of information
  - On any topic imaginable
    ‣ From World news & Politics to Teaching & HowTo to Ghostbusters & Socialist art
  - Often with thriving community discussion

• My current Reddit crawler which could be used to
  - Crawl entire discussions
  - Crawl public personal history

• Come talk to me if working with this (large amount) of data sounds interesting!
Questions? Comments? Suggestions?