User Interaction Issues In Social Networks

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Abstract

Social networks and internet community improves collaboration, communication and sharing of information. Social networks have experienced viral adoption and cornerstone for their success is ability to make users navigate and perform transactions without help or guidance. User design is often the key determinant of social network’s viral adoption. In this paper features in user design such as convergence, seamless navigation, componentization, light widgets and security are discussed. The application of these features is driven by the business problem addressed by the social network. These distinct business drivers are discussed. Representative social networking sites are analyzed and findings are shared. Social network design issues for organizational purposes are discussed and key differentiators between the design issues for open web and organizational network are distilled.

Introduction

The paper presents the user interaction issues in social networks and internet communities. First, the paper compares and contrasts the difference between social networks and internet community. The usage and benefits of both are discussed. Convergence, seamless navigation, componentization, light widgets and security are key issues in user design. The application must be Mobile, Web 2.0 enabled, virtual and intelligent. The design of social networks is different for public and organization use is discussed. The difference should be well appreciated in order to design an apt social network. This paper presents the user interaction issues in Facebook and LinkedIn in by comparing and contrasting the pros and cons of both social networks. The user interaction issues in Wikipedia is discussed to give an insight of user interaction issues.

Basic Social Network/Internet community

Social network services focus on building communities of people online, who share activities and interests, or who are interested in exploring the activities and interests of others. Social network services are web enabled and provide a variety of ways for users to interact, such as e-mail, chatting, instant messaging, photo sharing and video sharing services. In addition to these, users can also express their emotions, by likes, recommend, similes and tags. Social networking sites create powerful new ways to communicate and share information. They have high scalability in terms of usage, users and integrate into people’s life. The main types of social networking services are those which contain directories of categories (such as former classmates), mean to connect with friends, interest groups, and recommender systems linked to trust. Popular methods now combine many of these, with MySpace and Facebook being the most widely used in North America, Nexopia mostly used in Canada, Bebo, Facebook, Hi5, and Sky Rock in parts of Europe, Orkut and Hi5 in South America and Central America; and Friendster.

Social networks and internet community

There are significant differences between social networking and more traditional online communities. Social networking represents a related but significantly different application than more traditional online community/collaboration tools. Social networkings are sites/communities like Orkut, Tribe, Ryze, Facebook etc. "Common online communities" are discussion or message board-based communities which are millions in numbers.
Social network for business

Social network for common users needs to focus on how they can attract users to use their website and how they can make the people finding easy. But social networks for organization is focused on how a business can benefit from social networks.

Social networks connect people at low cost which can be beneficial for entrepreneurs and small businesses who want to expand their contact. These networks often act as a CRM tool for companies selling products and services. Companies can also use social networks for advertising in the form of banners and ads. Since businesses operate globally, social networks can make it easier to keep in touch with contacts around the world.

User Interaction Issues in Social Networks

User posts his data in social networks. User data is profile, podcast, contact information, blog post, message, micro blog, social public and private information and history of relations, links to other social sites and profiles, bookmarks, social message updates, pictures, videos and other data/information. The following are the user interaction issues that will arise when the user is using the application.

Noise

As the network become bigger and bigger lots of information are stored in the user account. This gives raise to ambiguity between relevant and irrelevant information. Users cannot keep up with all the people, all the content and the information. Social Networks and internet community must find ways to arrange the information in a smart way as the networks grow. Intelligent programs must be in place to hide infrequent use of a contact/information.

Map based Visualization

A visual map of user’s connections would help users to appreciate his connections and reach out the right contacts. Maps can also group similar users in a single cloud for user convenience. This would also help users to navigate and transact seamlessly. This can also help users to reach new contacts through known contacts.

Devolution

Social Networks need to be decentralized. Users have duplicate data on many social sites and other websites which is a considerable user interaction issue in social networking sites. Users should be able to aggregate all their online social data within their social networks. The sharing of this data should be implemented using RSS/ATOM. Social networks need to provide access to user’s public data with feeds that are read only to encourage decentralization, but for interoperability, we need standards to provide controlled read/write access to and from other social sites.

Privacy

Users should be able to control privacy/visibility of their contents, and it should be customizable, what the user want to put for public, what the user want to keep private, or what he want to show a group of selected friends, should be controlled by the user in a more efficient way by providing a user friendly privacy screen.
Design Issues in Social Networks

Few design features are common across all social networks. These are common denominators every social network is working upon and need to improve.

Table 1: Design Issues in Social Networks

<table>
<thead>
<tr>
<th>Design Features</th>
<th>Description</th>
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<tbody>
<tr>
<td>Easy Navigation</td>
<td>Navigation needs to be identifiable as navigation, and should be easy to interpret and select. Web 2.0 designs make global navigation large, bold and obvious.</td>
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<tr>
<td>Simple Design</td>
<td>Design should be simple. The site needs to be focused and more open. It should be taken as a discipline to consciously remove all unnecessary visual elements.</td>
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<tr>
<td>Rich surfaces</td>
<td>Use 3D effects to enhance the qualitative feel of the design. Drop-shadows and reflections project realistic surface effects which make a visual interface feel more real and finished.</td>
</tr>
<tr>
<td>Big Fonts</td>
<td>Social Networking sites need to have big text, compared to older-style sites. Big text makes most pages more usable for more people, so must have bigger text to increase user interaction and attraction.</td>
</tr>
<tr>
<td>Bold text</td>
<td>Social network sites should be with strong all-text headline descriptions. They need to be graphical, rather than usual text. This will have the designer, control over the page's visual impact.</td>
</tr>
<tr>
<td>Central layout</td>
<td>The sites need to assemble straight front &amp; center which make the site to the point and look catchy.</td>
</tr>
<tr>
<td>Strong colors</td>
<td>Bright, strong colors draw the attention of the user. Social Network sites must use them to divide the page into clear sections, and to highlight important elements.</td>
</tr>
<tr>
<td>Fewer columns</td>
<td>Social networking sites need to have fewer columns. Fewer columns are simpler, because not filling the whole screen so much, and not trying to get as much on-screen at any one time.</td>
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User Issues in Wikipedia

Wikipedia is a social networking site where different users contribute information on a topic. A major user interaction issue in Wikipedia’s is that some users remove verified facts from articles, and their actions are hardly monitored by administrators. As a result, no Wikipedia article can be considered reliable by its reader. So in academia Wikipedia sources are not accepted as references. Another flaw in the management of Wikipedia is the lack of a common understanding on adding external links to articles. Spamming the article with unwanted or irrelevant information has given rise to wiki spam. This external link fear has driven many good editors away from Wikipedia.

Administrators merely do casual verification of some of the content, instead of a more formal fact-checking process. Correction of wrong information is never assured. Some corrections might take weeks or months. Wikipedia can explore intelligent system to do initial fact-checking or at least follow up with administrators to do fact-checking based on importance of the information.

While Wikipedia content is appreciated often who created it and how things are created is not very clear. For any active collaboration it is highly important to trust each other. When trust lies low the quality of the content is also put down. Users will not be able to communicate as freely as they do face-face or while chatting.
Privacy and Security Issues

Social network sites are suffering from privacy and security issues which have a big impact on the level of user interaction. But security and privacy issues are different. A security issue occurs when a person gets unauthorized access to a site's protected coding. Privacy issues occur when the user data are accessed without permission. These types of privacy issue also occur when the user data are accessed even for recommending something like probable friends in social networks. Social Networks are easy to gain control to access personal/confidential information by simple hacking technique, as these sites are more open. These types of security and privacy issues often entangled on social networks, since anyone who breaches a site's security network opens the door to easy access to private information of any user. This type of privacy and security issues get worse when the user uses the site more frequently. For instance, if a particular user has signed up for many communities and has contributed his personal/official knowledge more times is vulnerable to privacy issue than the person who has used the site less.

Facebook and LinkedIn

Facebook has a much wider services than LinkedIn because of the large number of intermediary applications that people can install and use and so it is a more flexible medium of communication. Using Facebook for business networking is tricky. Organizations use Facebook to keep in touch with employees but at the same time runs a risk of allowing the users to get distracted by games, quizzes and other social group. This will consume considerable quality time of the user which could be effectively utilized. On the other hand LinkedIn which is actually healthier for professional use, by both companies and employees. LinkedIn gives a clear focused approach, whereas Facebook gives a bouquet of applications.

LinkedIn has remained stable in its services. It has also included Web 2.0 features by adding a job board as well as areas where user can find recommendations for service providers or answers to questions. It also offers premium services that allow users to access more information and the ability to contact second- or third-degree contacts (in other words, friends of friends of friends). Also, it has not deviated from its original mission to be a business only service rather than a more generalized social networking site.

Professional Networking

LinkedIn offers better job search services and if the user is a professional, because of its more businesslike atmosphere, its emphasis on business networking and the resume-like profiles that each user is provided. If the user is not happy about the boss finding out about the job search, Facebook offers much more secrecy, since the user can create an alternative look and feel. LinkedIn's format actively discourages secrecy. If the user thinks of creating an alternate Id he loses all the connections. Hence the look and feel of LinkedIn has posted a user interaction issue of the application. Even though these type of issue affect users for less time this surely is an important concern for users.

Network building

Facebook provides a more informal finding of colleagues, whereas LinkedIn provides more formal search. This will impact the user interaction issue of its own. LinkedIn users can find their former associate easily compared to Facebook. This is mainly due to its advanced search and organized database of LinkedIn. In case of Facebook it is more likely that people hit upon casual connections on generic topics and evolve their network.
In-Mail Services

Both LinkedIn and Facebook are good at networking. If contacts at Facebook are employed at a variety of companies, they can offer as good a chance of finding friends at a company the user is interested in.

However, LinkedIn does provide more chances of contacts via In-Mail service, which lets the user contact friends of friends. Even though it cost extra, the feature is too good that many have signed up for this.

This In-Mail service of LinkedIn has improved the user interaction but Facebook need to improve on this in order to improve the user utilization of its features.

Improvements Suggestions

Current Social Networks must improve on its Human-Computer Interaction and rethink online social networking. As the future of networking is solely dependent on sharing, Social Networks must create a system for users to effortlessly share, view, and respond to many types of collective content across multiple networks. More information is available deeper in the site so those information need to be brought to the front based on user needs.

Social Network must also emphasizes improving social connections by making it more efficient to communicate with, share, and view the social content of all the people in a user’s online social network. Social Network must provide a persuasive user experience because it sums content across many different networks so a user has a single location to learn find new content and communicate. The goal of Social Network must be to present social information in a way that ties it to the person who posted the information, and not the site from which it came. Tightly binding social content with user profile is very important in social networks.

At the same time these types of networks and community must be monitored by an intelligent system to see to that there are no spammers and no privacy issues. The intelligent system must as such not store user data but must always look for privacy issues and report to the user and the site administrator. Future Social network and internet community must be a web2.0 enabled which integrates blogs, forum, wiki, podcast and social book marking etc. This will improve the user interaction of the site.

The paper proposes the following improvements to social networks for improving its user interaction.

Table 2: Areas of Continuous Improvement

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<thead>
<tr>
<th>Suggested Area for improvement</th>
<th>Description</th>
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<tbody>
<tr>
<td>Improving response time</td>
<td>At peak times the site loads slowly. Proper communication is most important because most knowledge is being shared.</td>
</tr>
<tr>
<td>Eliminating Spam</td>
<td>Social Networking site need to get rid of the spam problem and it must be taken as top priority. Users often get spam all the time and it's really frustrating and time consuming.</td>
</tr>
<tr>
<td>Seamless Navigation</td>
<td>Social networks either for professional purposes or general networking are adopting a viral strategy for growth, they need to create seamless navigation. Users should be able to learn as they play around the webpage.</td>
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</tbody>
</table>
After getting the email address the social networking site must not send any email to the user’s inbox, rather hey should communicate collaboratively.

Social Networking site must provide options to drag and drop friends, contacts and profile. This makes the user interaction so much easier and gives more time to do other things.

Pop up boxes is good in certain situations. But it is a bad implementation when a new tab opens in the browser and the user doesn’t notice and clicking and clicking, then realize many tabs open.

Also the social network must also take advantage of Web2.0 by,

- Signals: The use of RSS (Really Simple Syndication) technology to notify users with any changes of the content by sending e-mails to them.
- Tags: Categorization of content by creating tags that is simple to facilitate searching and avoid pre-made categories.
- Links: The best pages should be most frequently linked to. The most visited pages by the user must be recorded while the user is browsing through the network.
- Search: The finding of contacts should be made more flexible and these searches must also search the user specific information to get closer to the search result.
- Recommendations: Fine tuning the concept of recommending friends in social network will help users to build their network tree easily.

All these improvements to social networks will make the user feel comfortable of using the system and hence the user interaction with the site will considerably improve.

**Conclusion**

When designing social networks and online communities it’s necessary to understand the underlying psychology of human behavior in collaborative environment. Having this knowledge the social networking site has better chance of delivering an effective site that supports interaction between users and improving collaboration.

It is important for social networking site to listen to the customers, concentrate on offering a best service by using latest technology so that people share information freely and easily. This information will turn into knowledge at one point of time. A friend-to-friend recommendation is the strongest support a social network can possibly have to increase user count in the site. But solving the user interaction issues will help the site to be used in a longer-run.

Using Web 2.0 concepts and application will improve the social interaction and hence the user interaction issues will be reduced. At the same time is not necessary to rush into integrating web2.0 with social networks. It is important to get the basics right first. It is important for the social network developers and managers to find out what communities are saying about the application and solve the user interaction issue which give the social network the true success.

**References**


The online, citizen-generated encyclopedia is especially popular among the well-educated and the college-aged by Lee Rainie, Director, Pew Internet and American Life Project and Bill Tancer, General Manager of Global Research at Hitwise1April 24, 2007.


