A Framework for Defining High-Quality Social Applications

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December 9, 2007

1 Introduction

Social applications are becoming the latest big thing in the technical world. With the popularity of social networks like Facebook, MySpace, Orkut, and Friendster and the subsequent introduction of application programming platforms for each - most notably Facebook's Platform and Google's OpenSocial, this area is showing more and more potential for innovation and profit, and plays a significant role in the direction of the web. Even outside the realm of social networks, social data is driving innovation on sites like Amazon.com, where users' interactions with the site drive its effective product recommendation system, and on Google, where links on users' web sites contribute the ranking of search results and ultimately advertising revenue.

But there is a tremendous disparity among the utility of these social applications and those built on their platforms. While some social applications offer significant value to users, developers, and networks, others offer little value or even detract from the user's experience. I will propose a framework for defining high-quality applications that leverage social information to increase their utility, effectiveness, and exposure.

2 Equivalent Incentives

The underlying message for all components of this framework is that incentives to all parties involved in the social application must be well-aligned. This is to say that any action must offer comparable utility to the person taking the action, people it affects, the application developers, and the system(s) on which the application is based. More specifically, people sharing information or taking actions within an app helps the developers and system, but must also help the sharer and potential recipients of the shared information. Wherever there are opposing or unequal incentives, instability is introduced and the application loses value.

3 Content

First, any quality application must have compelling content. Even without social integration, the product has to give users something they will spend time using, watching, or otherwise interacting with; it has to offer some inherent utility. Perhaps this utility is somewhat dependent on the users (e.g. users must upload videos to YouTube for it to have utility), but regardless, integrating social awareness into the application

should *enhance* this utility, bring it to more users who want it, or otherwise adding value. A product's social awareness should increase users' desire to consume the product and their desire to contribute in whatever way is relevant (even if they only contribute so others can consume).

For example, Amazon's recommendation system ("Others who looked at this eventually bought..." or "Others who looked at this also looked at...") adds considerable value to the existing content on Amazon's site. Similarly, the information about Facebook users' profile updates was always compelling, but the News Feed used social data to significantly increase its relevance and ease of viewing, thus adding utility to both users and the network.

4 Social Aggregation

The action of social interaction or social integration can happen in a few different ways. At a basic level, it consists of aggregating existing content to determine its relevance in a given situation, producing metacontent with considerable value. The social information can be used to aggregate content for a given user: what would that user be interested in given what his connections are interested in? What information *about* his connections might be be interested in? Using social context in this way can add structure to data, and offer the user information he didn't know he wanted or even existed. The end result is the user thinking, "Cool! I'm glad I know about this." Examples of this social aggregation include Facebook's News Feed, Amazon's recommendations, and Pandora's music recommendation engine. More direct information sharing applications like iLike or LastFM provide inherent and even more organic aggregation: users explicitly choose whose listening habits they are interested in, and are consequently presented with relevant information.

5 Virality

One popular buzzword of the day is "virality". How can a high-quality application leverage its social integration to spread organically? It is necessary to note that this organic, "viral" spread is not all there is to the social component - it is merely a contributing part of an application's social functionality. Most importantly, the application's viral nature should be intrinsic given its functionality, not something merely tacked on as an otherwise-unrelated distribution mechanism. It offers a way to expose utility to relevant users, and the mechanisms it uses are not inherently good or bad, but the way it uses them is crucial.

In the interest of preserving equivalent incentives, viral techniques need to be unintrusive. If they encroach on their recipients too much, they will be perceived as a nuisance or spam and their negative utility to the recipient will outweigh their positive utility to the application and (potentially) the sender. Viral messages should be embedded in the appropriate places and presented as *information* that a user has the option of consuming, rather than as an action or request that the user feels an obligation to address.

Therefore a kind of passive virality is better for recipients than active virality: they get the information if

they want it, but if it is undesired, the cost is insignificant. This distinction can be extended to the initiator of any viral action: it is better to extract information from existing data and find trends to share with relevant recipients, rather than requiring extra action on the part of the sender and the recipient.

For example, Facebook applications that require users to invite n friends before experiencing the application utilize active virality for both the sender (inviting friends) and the recipient (responding to invitations). Furthermore, this type of action generally has a negative effect on the recipient, somewhat neutral for the sender, positive for the developer, and indirectly negative for the network. As such, it also violates the principle that parties should have equivalent incentives to encourage actions. For this reason, these are not ideal examples of social applications, and often do more harm to the reputations of their developers and (perhaps more importantly) to the networks upon which they are built. This phenomenon is evident given the many vocal users who deride all Facebook apps for being annoying and spammy despite the fact that many do not exhibit these negative attributes.

6 Conclusion

Well-designed social applications should fit this framework well, and will contribute to the overall value of the social web as it evolves in coming years. However, much research remains to be done to elaborate more specifically and definitively on all the concepts outlined here.

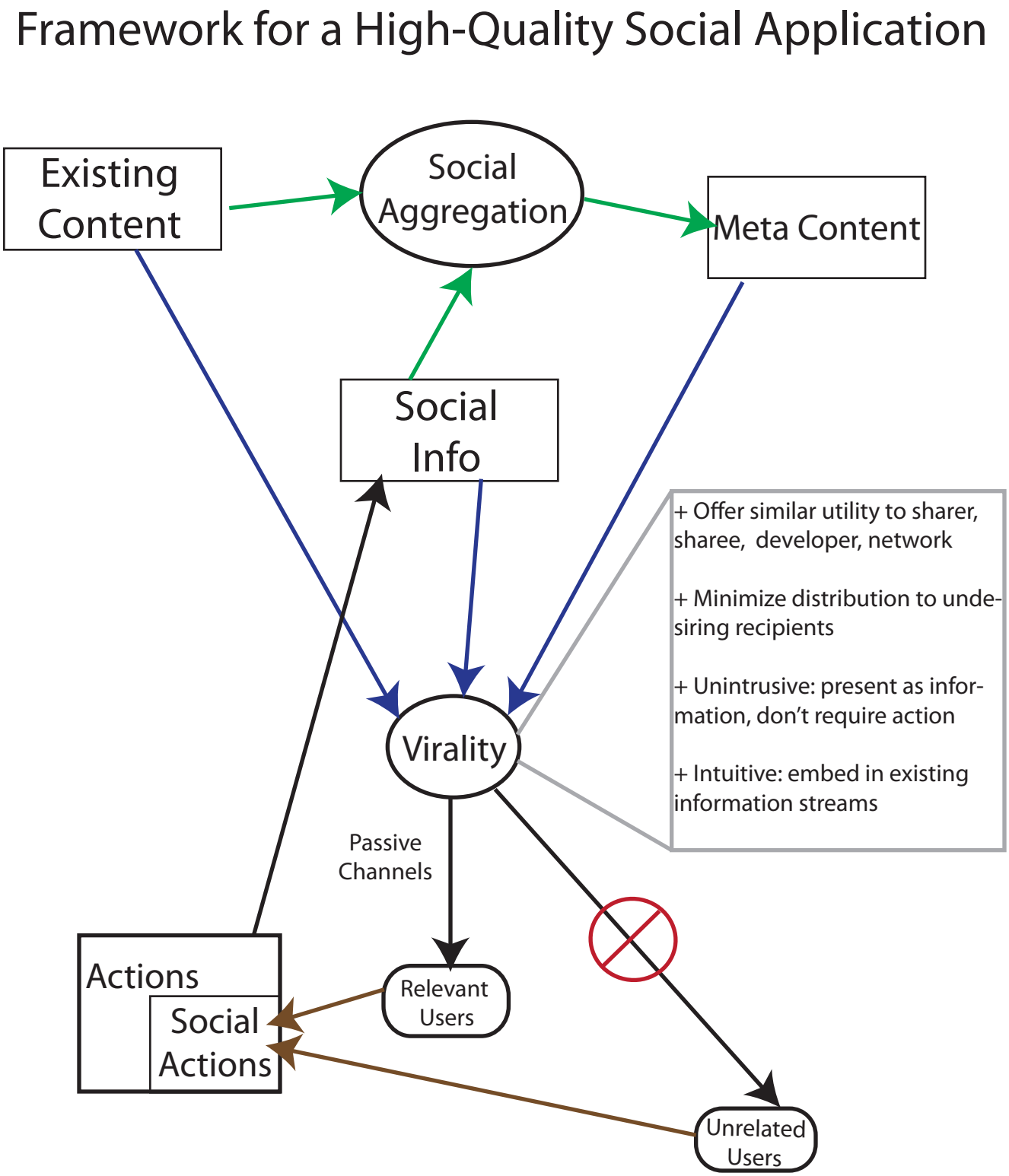

Figure 1: A visual representation of a high-quality social application.