Library Hi Tech News

"Through the looking glass: envisioning new library technologies" social media trends that inform emerging technologies

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LIBRARY HI TECH NEWS

VOLUME 33 NUMBER 2 2016
MARCH

AN EMERALD PUBLICATION

incorporating Online and CD Notes

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"Through the looking glass: envisioning new library technologies" social media trends that inform emerging technologies

Peter Fernandez

Modern technology is not only connected but also social. Recently, *Wired* ran an article titled "You're Probably Not Rich Enough to Opt Out of the Internet" (Hempel, 2015). The article highlighted how, in many places, access to the Internet has become so integrated into daily life that it functions more like a utility than an optional commercial interaction. Many of the examples the article gave were drawn from the various social media platforms that mediate the personal and professional lives of their users. Social media enables people to establish and maintain relationships that were previously inconceivable, and for an ever-growing number of users, the benefits provided by social media mean that opting out of them is comparable to "opting out of modern life" (Gibbs, 2014).

This column will explore recent developments in a number of relatively well-established social media platforms – Google+, Facebook, Twitter and Yik Yak – to highlight the trends that are emerging within social media. These trends have implications beyond just the social media space as a host of technologies take on social attributes. Technologies such as video games, which previously functioned more or less as stand-alone pieces of software, are increasingly embracing many of the tools of social media platforms. As a result, it is increasingly difficult to distinguish social technology from other communication technologies (Papacharissi, 2015). By examining trends in social media, we are able to not only better understand these important platforms but also acquire insight into developments that can affect a wide range of related technologies, all of which are of interest to information professionals.

The current ecosystem: from MySpace to Facebook

In June 2006, MySpace was not only the world's most used social media site, by some accounts it briefly eclipsed Google as the most visited Web site of any kind in the USA (Cashmore, 2006). With hindsight, it is easy to see that

MySpace's dominance was fated to be short-lived, but its legacy informs both the practical design of most modern social media platforms, as well as the discourse around them.

As its name implies, MySpace allowed users to have a great deal of customization over their profiles, giving them a wide array of tools to express themselves in a digital world. In the post-MySpace era, most popular social media platforms have focused on giving users fewer, more meaningful choices. Users no longer have the ability, or implicit obligation, of choosing the color scheme and theme music for their profile (as they did with MySpace). In fact, increasingly, the focus has moved away from the profile of individual users and toward making it easy for them to share content. That content – the links, thoughts, photographs and so on that users generate and share – has become the core of most popular social media platforms. Profiles still exist, but they rarely serve as the core of the user experience in the way they did when MySpace was the most popular network.

Since MySpace's fall from prominence, it has become common to posit that a new social media platform could emerge at any moment and overtake Facebook. However, it is worth observing that Facebook has held its place since 2008 and has an almost hegemonic dominance over the industry. Unless Facebook makes a serious mistake, it may be more likely to fail because the core framework of the Internet shifts, rather than being overtaken by an upstart platform (Keating, 2014). That is not to say that another social media network cannot supplant Facebook, but instead that if it happens, then the transition will likely be very different than what has occurred in the past.

By and large, the kind of platforms that have emerged recently are more like WhatsApp, a cross-platform instant messaging service, and Instagram, a network built around the images taken by smartphones. Both are examples of niches that were underserved by Facebook and might have the potential to develop into more robust platforms over time. In these particular two examples, Facebook ultimately purchased both companies and maintains them stand-alone services even as it has built additional tools for photo sharing and messaging into Facebook. As a result, it has been able to learn from others and effectively incorporate the emerging trends that gave rise to these smaller networks into its platform.

Social media and the future of big data

It is difficult to argue that the social network Google+ has met the expectations that were placed upon it when it launched in 2011. At that time, it was heralded in the media as a credible threat to Facebook's dominance over the social media landscape. Now, just four years later, a recent study demonstrates that less than 1 per cent of its 2.2bn users engage with the site on a regular basis (Denning, 2015). If the metric for a social media site's success is its ability to convince users to log in, share content and interact with each other so that the platform can then deliver ads to them, then by most metrics, Google+ has failed to meet expectations.

Still, Google+ continues to serve an important role in the Google ecosystem and understanding why reveals an important facet about social technology in general: It does not exist in a vacuum, and the large players often have multiple goals. The true value of Google+ to Google has never been just the profit the social media site could generate through ad revenue. Google already has a robust platform (its search engine) through which to deliver advertisements. But a social media platform also has the potential to provide unique forms of data about its users. That data can, in turn, be used by Google to inform its other services.

Since Google unified its privacy policies across its services in 2014, collating data about its users has become easier than ever before. Google's overall reach is impressive, and for a time, it was aggressive about pushing users of its other services, such as YouTube, into joining Google+. The 1 per cent mentioned above is not insignificant because even a fraction of 1 per cent of 2.2bn is still a meaningful number of people. Additionally, in recent years, individual services that once resided exclusively in Google+, such as Hangouts and Google Photos, have now been spun off into their own applications. Those successful spin offs are examples of how Google is able to take the expertise it developed about its users within Google+ and leverage it for new applications.

A recent report by *Business Insider* further underscores this point by highlighting how Google uses the data it collects in Google+ to inform search rankings. Through its connections to other services, Google is able to develop information about users' geographical location over time and, perhaps more importantly, develop a profile about how they perceive themselves (Smith, 2014). These same data can then inform related products such as how rank search results and their personal assistant mobile application, Google Now.

Moreover, take the example of Google Photos, which was a powerful tool for storing and organizing photographs, but was relatively underutilized as a part of Google+: Many users avoided it because of the "creepy factor" of Google connecting an archive of all their personal photographs to a social networking account (Frank, 2015). However, as a stand-alone service, it has flourished. When it comes to the platform's usefulness to Google, particularly as mining user data allows them to gain an edge in developing of photo recognition software, the fact that Google Photos is no longer housed in Google+ may be a distinction without a difference.

The information generated by user activities within social media platforms are increasingly being used as the basis for technologies beyond Google. As the era of big data and online social interactions merge, new technologies will be built that require intimate knowledge about user behaviors. For example, Netflix has recently had a string of successful new television programmes that were heavily informed by the access they have to their existing users' viewing preferences (Carr, 2013). Amazon builds profiles of its users to predict what books or products they may be interested in. Those institutions that have access to information about how its target customers behave in social contexts will be uniquely positioned to leverage that information in new arenas.

Creating closed systems

Rather than try to pool data about its users across a suite of services, Facebook is able to take direct advantage of its engaged audience of users. Perhaps the most noticeable example has been Facebook's recent efforts at changing how news is shared on the site. A clear majority (63 per cent) of Facebooks users in the USA get news from the site, making it a significant force in the modern news ecosystem (Barthel *et al.*, 2015). In fact, Facebook already drives more news traffic than Google (Ingram, 2015).

The importance of Facebook is set to grow as it unveils a series of initiatives aimed at transforming news media. In December, Instant Articles was rolled out globally. Facebook's Instant Articles service allows publishers to host their content on Facebook's servers. This allows publishers to load content faster and work within Facebook's successful mobile environment, which accounts for an increasing part of all Web traffic. The recently unveiled app Notify seeks to further cement Facebook's role as a driver of news by providing up-to-the-moment notifications of breaking news through its partners (Constine, 2015).

This effort will allow Facebook to compete more directly with Twitter, which has been the standard bearer for breaking news in the world of social media. Additionally, rather than driving users to other sites, Facebook is positioning itself as a complete platform. For news producers trying to find ways to monetize and stay solvent in an increasingly challenging media environment, Facebook is also providing them with a way to connect directly to engaged, mobile users. This gives Facebook control of both the advertisements and the algorithms that decide what content appears in user news feeds. In doing so, such algorithms have been criticized as "filter bubbles" that encourage closed networks of information that can be not only comforting but also detrimental to sustaining a robust exchange of ideas (Pariser, 2011).

This tendency to create an enclosed systems can been seen in other efforts by Facebook, as well. Facebook is pioneering ways to provide "free" access to the Internet in locations that currently do not have widespread access; its Free Basics initiative has been rolled out in about three dozen developing counties. The initiative leverages Facebook's strength on mobile platforms and the wide array of content that can be found on Facebook to develop a unique foothold in emerging markets to provide access to information and communication technologies in places where they had not previously existed. The catch is that this version of the Internet is relatively limited, offering access primarily to Facebook products.

Such efforts have profound implications for those who care about issues such as net neutrality, which is the idea that all data on the Internet should be treated the same without preferential treatment for any group. For this reason, in places like Egypt and India, the Free Basics effort has been temporarily stopped by local governments. Elsewhere, it is now possible for users' first and possibly only experience with the Internet to be limited by the boundaries of Facebook. For those people, Facebook, in important ways, literally is the Internet.

All of these tendencies have implications beyond Facebook. In a world where not everyone has free access to information, and in which those who do are often overwhelmed by information overload, mediated spaces like social networking platforms provide vital filters. Constraining users' choices to allow for meaningful interactions enables new forms of communication and connections. Yet technology companies of all types are seeking to find the right balance between meaningful filtering and innovation stifling limitations.

Cultural influence and profitability

In comparison to the platforms created by Facebook and Google, Twitter is a niche social networking idea. It has leveraged its short, microblogging format of 140 characters or less to have tremendous cultural influence, but that format does not necessarily directly translate into a sustainable business strategy, a tension that has driven many of the recent updates to its platform.

Public figures like to use Twitter because its character limitations lend it an informal feel. The brevity of its content also makes it eminently quotable for publishers. Unlike a blog post, there is usually room to insert a tweet into a news article or at the bottom of a newscast. Similarly, information professionals appreciate that Twitter is, by default, a public platform allowing for new and different ways of archiving, researching and documenting the conversations that take place on it. All of these capabilities have created a virtuous circle of increased attention around the platform.

When first launched, one of the unique features of Twitter was its relatively open application programming interface (API), which initially allowed a host of other developers to make their own clients for accessing and using Twitter. This openness helped Twitter reach the critical mass necessary to take on its unique role in the information ecosystem (Popper, 2012). It also helped them develop the platform, as companies like Twitpic were the first to incorporate support for features such as images that were taken up by other developers and are now core to the Twitter experience.

In recent years, Twitter has increasingly closed off access to its API, effectively ending many other companies' services in an effort to create a more controlled experience. This effort has happened amidst increasing concerns about Twitter's ability to turn a profit, even as it seeks to both grow and leverage the influence it already has. For example, in December 2015, for the first time, Twitter launched a pilot programme to show advertisements to viewers who are not logged in, allowing them to monetize the influence the service has outside its registered members (Fiegerm, 2015). Other recent changes that have been met with criticism from its existing user base include renaming the favorites button to be a "like" button, experimenting with displaying Tweets using algorithms for relevance rather than just chronologically and even exploring the idea of allowing Tweets longer than 140 characters (Koh, 2015).

At the same time, Twitter has partnered with Google to released apps, such as Moments, that will compete with Facebook's Instant Articles. Only time will tell if these changes are successful moves, but what the changes reveal are the limitations of being a niche social platform form with grander ambitions. Twitter does not have alternate profit

centers like Google does or the hegemonic success of Facebook. In this role as the platform that facilitates information to key influencers who shape the stories and narratives of our time, Twitter's place it secure for now. But this intersection of commerce and cultural relevance will continue to shape the details of the development of the technology that powers our social interactions.

Physical and virtual spaces meet

Yik-Yak is a relatively new social media platform that helps to demonstrate how many social media trends may evolve in the future. Yik-Yak users log into an app and are able to comment on real-world phenomena based on user location. Like Instagram, Yik-Yak is possible only in a world that takes mobile smartphones for granted. This enables new types of conversations as people can interact with something in the real world by using the tools of social media, thus blurring the lines between the real world and the virtual world.

Both the potential, and the dangers, inherent in this type of venture can be seen in the story of Peeple. Dubbed a Yelp for people, the proposed software would enable people to rate each other. Public announcements about the development of the app have recently ceased, in part because the founders have been the subject of death threats and bullying.

Libraries concerned with creating safe spaces need to think critically about apps such as Yik-Yak. The ability to bring communities together has long been a role of libraries, and this role should continue in the virtual world. However, all of these platforms have also been spaces for new types of bullying, which can become even more troubling when they have location-specific capabilities.

Conclusion

All of these social media trends have both direct and indirect implications for libraries. Libraries already use these platforms to market and reach their patrons. Looking forward, how these platforms develop will transform how libraries and their patrons communicate. Indeed, they will likely continue to transform the dynamics of social interactions and the resulting public record. As they develop ways of sharing and filtering, they will also continue to transform how information of all kinds, from news and movie reviews to cutting-edge academic research, reaches an audience.

Libraries that could access and effectively use data about the social and entertainment habits of their community would be able to create new services to meet their community's needs. Indeed, while Google is not currently sharing the raw data it collects, Google is positioning itself as a service that can help institutions interpret this kind of data. As the platforms evolve, they will inform our search engines, our news filters, our physical spaces and ultimately the nature of our public discourse.

REFERENCES

Barthel, M., Shearer, E., Gottfried, J. and Mitchell, A. (2015), "The evolving role of news on Twitter and Facebook", available at: www.journalism.org/2015/07/14/the-evolving-role-of-news-on-twitter-and-facebook/

Carr, D. (2013), "For "House of Cards," using big data to guarantee its popularity", *The New York Times*, available at: www.nytimes.com/2013/02/25/business/media/for-house-of-cards-using-big-data-to-guarantee-its-popularity.html

Cashmore, P. (2006), "MySpace, America's number one", available at: http://mashable.com/2006/07/11/myspace-americas-number-one/ (accessed 1 January 2016)

Constine, J. (2015), "Hands-on with Facebook notify, a push notification news app and Twitter alternative", available at: http://social.techcrunch.com/2015/11/11/facebook-notify/

Denning, S. (2015), "Has Google+ really died?", available at: www.forbes.com/sites/stevedenning/2015/04/23/has-google-really-died/ (accessed 15 December 2015).

Fiegerm, S. (2015), "Twitter wants to start making money off the 500 million people who don't sign in", available at: http://mashable.com/2015/12/10/twitter-ads-logged-out-users/ (accessed 2 January 2016).

Frank, B.H. (2015), "Google photos ditches Google+ to avoid the creepy factor", available at: www.pcworld.com/article/2928452/google-photos-ditches-google-to-avoid-the-creepy-factor.html (accessed 1 January 2016).

Gibbs, S. (2014), "Why ditching Facebook feels like opting out of modern life", *The Guardian*, 1 February, available at: www.theguardian.com/technology/2014/feb/01/why-ditching-facebook-feels-like-opting-out-of-modern-life

Hempel, J. (2015), "You're probably not rich enough to opt out of the internet", available at: www.wired.com/2015/12/youre-probably-not-rich-enough-to-opt-out-of-the-internet/ (accessed 17 December 2015).

Ingram, M. (2015), "Facebook now drives more traffic to media sites than Google", available at: http://fortune.com/2015/08/18/facebook-google/ (accessed 2 January 2016).

Keating, J. (2014), "How will Facebook die?", *Slate*, 4 February, available at: www.slate.com/articles/technology/technology/2014/02/facebook_10th_anniversary_how_will_the_social_network_die.html

Koh, Y. (2015), "Twitter mulls expanding size of tweets past 140 characters – WSJ", available at: www.wsj.com/articles/twitter-mulls-expanding-size-of-tweets-1443554128 (accessed 2 January 2016).

Papacharissi, Z. (2015), "We have always been social", *Social Media + Society*, Vol. 1 No. 1, available at: http://doi.org/10.1177/2056305115581185

Pariser, E. (2011), *The Filter Bubble:What the Internet is Hiding from You*, Penguin Press, New York, NY.

Popper, B. (2012), "Twitter follows Facebook down the walled garden path", available at: www.theverge.com/2012/7/9/3135406/twitter-api-open-closed-facebook-walled-garden (accessed 2 January 2016).

Smith, C. (2014), "Google+ doesn't mind being the also-ran social network – it's after the data", available at: www.businessinsider.com/social-big-data-and-what-it-means-google/2014/2 (accessed 15 December 2015).

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