Social Networking Websites

A **social network** is a social structure composed of individuals, groups, or organizations linked by values, visions, ideas, financial exchange, friendship, kinship, conflict, or trade. **Social networking** refers to activities performed using social software tools (e.g., blogging) or social networking features (e.g., media sharing). Social networking allows convenient connections to those of similar interest.

A social network can be described as a map of all relevant links or connections among the network's members. For each individual member, that map is his or her **social graph**. Mark Zuckerberg of Facebook originally coined this term to refer to the social network of relationships among Facebook users. The idea was that Facebook would take advantage of relationships among individuals to offer a richer online experience.

Social networks can also be used to determine the social capital of individual participants. **Social capital** refers to the number of connections a person has within and between social networks.

Participants congregate on *social networking websites* where they can create their own profile page for free and on which they can write blogs and wikis; post pictures, videos, or music; share ideas; and link to other web locations they find interesting. Social networkers chat using instant messaging and Twitter, and they tag posted content with their own key words, making content searchable and facilitating interactions and transactions. Social networkers converse, collaborate, and share opinions, experiences, knowledge, insights, and perceptions with one another. They also use these websites to find like-minded people online, either to pursue an interest or a goal or just to establish a sense of community among people who may never meet in the real world.

Participants who post on social networking sites tend to reveal a great deal of personal information. As a result, if they are not careful, bad things can happen.

Table 9.1 displays the variety of online social networking platforms. Social networking websites allow users to upload their content to the web in the form of text, voice, images, and videos.

These social networking sites produce a massive amount of information uploaded by their users. As you see in **IT's About Business 9.1**, startup Banjo has developed software to integrate and analyze all this information.

Enterprise Social Networks

MIS Business-oriented social networks can be public, such as LinkedIn.com. As such, they are owned and managed by an independent company.

IT's About Business 9.1

Banjo Organizes the World's Social Media

MIS

We all encounter "noise" generated by social media. In this context, noise consists of the massive amounts of unstructured data generated from tweets, Facebook updates, images, and full motion video clips, uploaded to various social media websites. Within this noise, there are important signals that need to be noted, collected, and analyzed. The problem is clear: How can we make sense of all the noise?

Startup Banjo (**http://ban.jo**) has developed software that functions as an event-detection engine. The software catalogs social media activities by location, yielding an unmatched richness of data concerning events that occur around the globe, in real time. As such, Banjo has developed an information-gathering and disseminating system that works anywhere in the world.

Banjo displays data from geolocated posts uploaded from mobile devices, through a user-friendly website. Banjo integrates uploads from the top social networks, including Twitter (**www.twitter.com**), Instagram (**https://instagram.com**), Vine (**https://vine.co**), Facebook (**www.facebook.com**), Russia's VKontakte (**https://vk.com**), and China's Weibo (**www.weibo.com**), among others.

How Banjo Works. In 2011, Banjo launched a consumer news app (called Banjo 1.0) that integrated various social media feeds. As reported by AppData (**www.appdata.com**), Banjo was downloaded approximately 7.5 million times. Banjo 1.0 still exists, but the company no longer actively supports it.

The next generation of Banjo, Banjo 2.0, benefited from the fact that users of Banjo 1.0 accessed it through a social network. Banjo could access the posts of its 7.5 million users but also those

of all their approximately 1.2 billion friends on their social networks. Banjo 2.0 harnessed the power of its reach to 1.2 billion people and their ability to capture images, videos, and text through their mobile devices.

Banjo maps a grid over the whole world, consisting of more than 35 billion squares, each about the size of a football field. Since 2011, Banjo has continually observed every square in real time, overlaying every mobile public post onto its grid. The software knows what the usual characteristics are for each square: this square is in a wheat field; this square is in a war zone with smoke and fire; this square is in Disneyland, and so on.

Every minute, Banjo's software analyzes thousands of geo-located mobile posts, examining data on linguistics and location, and classifying photos and videos. When the data indicate an abnormality from the baseline, such as unusual activity in a normally quiet area, Banjo alerts company staff, who investigate the alert and either ignore it or notify users. As Banjo's software accumulates more data and can "learn," staff need to intervene less often.

Banjo's analytics include not only the ability to identify locations and photos, but to "rewind" the state of each square on each social media network. (The rewind function means that users can see what occurred before a particular event occurred, for example, just before an earthquake.)

Rather than users trying to make sense of their social media feeds through hashtags and keywords, they can have an integrated view of their feeds, from any location on earth. Users enter their location (plus any desired keywords), and the Banjo maps resizes to scale. All the relevant public posts for that location are shown as pins on the map, with links to text, photos, and video. This process occurs in real time.

Traditionally, users have asked, "How do we mine social media?" Banjo integrates social media from the perspective of mobile phones, which are in specific locations in the real world. As a result, Banjo asks, "How can we know what is going on in a specific place at a specific time?"

Naturally, such a treasure trove of data could be a privacy minefield. Banjo has tried to protect users' data by developing a patented system of automatically searching its database and removing any posts that have been made private or deleted by users. When users alter their privacy settings, Banjo wipes out all information retroactively. The information is no longer in Banjo's system and no longer in Banjo's users' systems, immediately.

Banjo Applications. Banjo's technology has implications for diverse industries, including news and media, financial services, marketing, insurance, public health, and many others.

Banjo isn't just a way to locate an impromptu street party—it can also save lives. It was credited with alerting authorities to a shooting on a Florida campus, thanks to a tweet sent by one of the witnesses. Shortly after midnight on November 20, 2014, a single tweet was posted from a spot near the Florida State University (FSU; **www.fsu.edu**) campus in Tallahassee. The tweet had no hashtag, but Banjo picked up on the words "scared to death," and noted an increase in the number of Twitter and Instagram posts sent from that location. The software noted the deviation in that grid square and alerted Banjo employees, who contacted the CBS affiliate in Tallahassee. That station investigated and was the first on the scene to report that a shooting took place in an FSU library, wounding three. Media companies, such as NBC and ESPN, are among Banjo's longest-member clients.

POM Here are more applications of Banjo by media outlets. Sinclair Broadcasting Group (**www.sbgi.net**), which owns 162 television stations in 79 markets, uses Banjo as a sort of remote reporting team. Banjo informs its newsrooms when a story develops. A news director can visit the scene virtually, following a real-time stream of all the posts of photos, videos, and commentary from users at that location. The newsroom can then connect with the authors of those posts without needing to tweet or e-mail, and get permission to broadcast their content, without having to send a reporter to the scene. Sinclair can use Banjo to create a time line of events that occurred before a certain activity, such as an album of images and videos that happened just before the Charlie Hebdo attacks in Paris in January 2015. The technology allows Sinclair to syndicate its newscasts to licensees economically.

FIN Banjo technology is also disrupting the business world. In November 2014, Banjo analyzed images of a fire at a diesel pipeline in Saudi Arabia. Its photo algorithms twigged to the incident. Customers working in the finance field used the information when trading on oil in less than an hour after the photos were flagged. Two hours after the initial Banjo notification, when the media picked up on the story, the price of oil futures rose by $2 a barrel. Clearly, traders could make huge amounts of money with the lead times provided by Banjo alerts.

Banjo is quick to point out that its goal is not to gather all the personal information about users and sell it to advertisers. Instead, it generates and sells intelligence from the content that users willingly provide.

Social media is not the be-all and end-all source of information. It doesn't provide all the data needed for Banjo's intelligence gathering. Therefore, the startup is adding new data sources, such as weather data from various countries, including the National Weather Service (which has approached Banjo about constructing an alert system) as well as satellite imagery. Furthermore, Banjo notes that in an Internet of Things environment, sensors in physical objects such as vehicles and buildings also emit data worth collecting.

Sources: Compiled from "Banjo Gives Away Crystal Ball to Members of the Media," *Banjo Press Release*, September 24, 2015; B. Golden, "How an Innovative Mobile App Uses Location to Track Events," *CIO*, August 26, 2015; D. Pierson, "Banjo's Ability to Track Events in Real Time Gives Clients Competitive Edge," *Los Angeles Times*, June 20, 2015; J. Paduda, "Will Banjo Be the Social Media App that Revolutionizes Insurance?" *joepaduda.com*, June 3, 2015; D. MacMillan, "Banjo Raises $100 Million to Detect World Events in Real Time," *Wall Street Journal Digits*, May 6, 2015; A. Talbert, "How a Social Media Company You've Never Heard of Is Primed to Revolutionize Customer Service," *Zoho Blogs*, April 27, 2015; W. Schmidt, "What Would You Do If You Had a Crystal Ball?" *Tech.co*, April 22, 2015; H. Clancy, "Why Social Media Startup Banjo Will Strike a Chord with Marketers," *Fortune*, April 2, 2015; W. Bourne, "The Most Important Social Media Company You've Never Heard of," *Inc*, April 2015; O. Williams, "Banjo Updates Mobile Apps to Create TiVO for Social Media," *TheNextWeb*, March 8, 2014; D. Etherington, "Banjo Puts News and Live Events Front and Center with Version 4.0 of Its Mobile App," *TechCrunch*, January 16, 2014; M. Butcher, "New Banjo App Aims to Become a True Browser for Location, A Much Bigger Opportunity," *TechCrunch*, November 15, 2012; T. Geron, "Banjo App Connects with the Nearby Social World," *Forbes*, June 22, 2011; http://ban.jo, accessed August 15, 2016.

Questions

1. **What are potential disadvantages of Banjo?** (*Hint:* **What about privacy concerns?**)

2. **How would marketing managers use Banjo? Provide an example to support your answer.**

3. **How would insurance companies use Banjo? Provide an example to support your answer.**