>> Mobile Social Networking: The New Ecosystem

Social networking and the next generation of handheld devices will improve business decision-making through efficient, unified communications and location awareness.

Business Anywhere, Anytime • By Paul Gillin

When interactivity is combined with unified communications and location awareness, next-generation social networks will have significant business value. Unified communications integrates the wide variety of voice, data, video and collaboration tools that business professionals use today into a single environment. This can dramatically improve the speed of decision-making by connecting collaborators quickly, regardless of their location.

In nightclubs, railroad stations and city squares across Germany today, people are striking up conversations with total strangers based upon invitations received on their cell phones. The connections are made by aka-aki Networks, a new mobile social networking service. Users download a free application that alerts them when another aka-aki member is within range and interested in meeting. People can read one another's profiles before deciding whether to strike up a conversation.

Aka-aki is one of an emerging class of Internet applications that is extending online social networks to mobile devices. The market opportunity for these applications is enticing. There are 3.3 billion mobile communications devices in use around the world today, yet only a tiny percentage of them are participating in the social networking craze that has swept the wired world.

Social networks have caught on because they make it easy for people to stay connected to large numbers of friends and acquaintances. Social networks have been the talk of the Internet since early 2007, when Facebook began its rapid growth and specialized social networks began to blossom. There are now more than 2,500 social networks online, according to the Go2Web20.net directory. They serve everyone from dog lovers to doctors. Some are beginning to tap the underserved mobile market. For example, more than 1 million BlackBerry® smartphone users have downloaded the recently released Facebook client application to their BlackBerry® smartphones.

Research firm eMarketer forecasts that the mobile social networking market will grow from 82 million users in 2007 to more than 800 million worldwide by 2012. Informa Telecoms recently reported that approximately 50 million people already

use portable devices for social networking activities ranging from chatting to multimedia sharing. It expects that number to quintuple over the next five years. The trend is especially pronounced in Europe and the Pacific Rim, where PC penetration is lower than in the U.S. For example, a quarter of all mobile phone subscribers in the UK use their portable device for social networking-related activities, according to Nielsen Mobile.

The trend can be expected to spread into business applications of social networks, a market that Forrester Research expects will account for $4.6 billion in annual spending by 2012.

Technology Drivers

Portable devices have been getting smaller and more powerful for years, but technology breakthroughs are enabling new applications to emerge. Chief among these is location awareness, a feature that enables users to meet new people or find colleagues nearby. It is likely to spur a new generation of mobile services as the capability moves to the mass market.

About 15% of smartphones today come equipped with support for the satellite-based global positioning system (GPS), according to Kevin Burden, director of mobile devices at ABI Research. However, GPS-enabled phones, like the camera phones that preceded them, will rapidly go mainstream. "Social networks will get to a new level once the network knows your location and the location of people you're interacting with," Burden says. "I can't think of any feature more important to build into a mobile phone."

While all cell phones are required by law to support rudimentary location awareness, the GPS network offers far more precision than the cell-tower triangulation techniques used in standard cell phones. GPS makes it possible to pinpoint a device to within a few feet. Once users are able to label – or "geotag" – their messages and images with location information, interesting new applications emerge.

For example, mashups built on platforms like Google Maps and Google Earth will make it possible for groups of device-

toting individuals to assemble a rich tapestry of images in near real-time. Business applications of location-aware devices include fleet logistics, field sales coordination, and knowledge management and mapping. Once businesses have a handle on the location of their assets and employees, social networking tools can be used to connect people in virtual teams for project management, brainstorming and on-location customer service.

Some companies are already using internal social networks to create knowledge maps of their employee skill sets and are combining them with unified communications to enable rapid access. Using this model, employees can quickly tap into organizational expertise as needed. These internal social networks will have great value as businesses become more geographically distributed. Users will maintain rich profiles of their own skills on internal websites and make themselves available to share their expertise as needed.

As a result, businesses will become more flexible and efficient. "The 20th century fully evolved the concept of the home office employee, but now we are envisioning the mobile worker where location anywhere, for that matter, is secondary to getting the job done," says David Heit, director of enterprise product management, of Research In Motion.

Vendors, recognizing that their tools need to work as well for the mobile professional as for the desk-bound, are designing and building their tools with, and for, mobility usage from the start. For example, when the BlackBerry® Client for IBM® Lotus® Connections was announced, it was deemed a core deliverable in the design of the Lotus Connections software release. Many vendors are opting for the benefits of a full client approach rather than a browser interface. A mobile client offers the advantages of offline access, tolerance for the intermittent connectivity that one is likely to encounter when relying on a browser-based interface, as well as full integration with other local applications.

Wireless networks are also getting faster. As handheld devices increasingly become the preferred Web on-ramp for mobile

users, people are seeking to duplicate their desktop experience as closely as possible. Screen size will always be a limitation of mobile devices, but technology solutions are emerging, such as devices that project screen images on a wall or sheet of paper.

Trust Equation

While experts differ on whether users will ever trade in their PCs for mobile devices, there is ample evidence of demand for mobile social network features. One reason: people trust information from their peers. A recent study by the Society for New Communications Research found that nearly three in four consumers agreed with the statement, "I choose companies/brands based on others' customer care experiences shared online." A late 2007 Nielsen survey found that consumers listed "other consumers" as their most trusted source of information, far ahead of mainstream media.

Peer reviews are seen as being more genuine than opinions delivered by businesses or even the mainstream media, particularly when a person already has a relationship with the reviewer. But even when a prior relationship doesn't exist, peers are perceived to be more credible because they have little cause for bias. Social networks such as Yelp and ThisNext, which combine reviews from many sources, benefit from the "wisdom of crowds" effect.

That wisdom can apply to enterprise decision-making as well. Corporations can tap into customer conversations on public or private, branded social networks to discern attitudes and buying intentions. By facilitating peer interaction and recommendations, businesses can also quickly build credibility and "buzz" faster than they would with expensive advertising campaigns. This helps with branding and marketing campaigns.

Emerging Applications

The mobile social networking market has been energized by Twitter, a service that enables members to exchange short messages among users and groups of their "followers." Twitter's immediacy and its effectiveness at eliciting rapid response has earned it a cult following. Users find that they can get answers to complex questions delivered to their cell phones in a matter of minutes.

Other services have sprung up to build on Twitter's foundation. Utterz, Bluepulse, Mocospace, Zingku, Jaiku and Pownce offer additional features like multimedia and group calendaring. Now a new breed of application is emerging that leverages location awareness for rich new functionality.

For example, Loopt enables members to track their friends on a map and share text messages or plan meetings based upon proximity. Gypsii has similar features and also includes photo and video-sharing. Helio sells location-aware cell phones and related social network services.

These services add value to the social network experience in the following ways:

Immediacy – Users can get answers to their questions or report on important events in minutes. In addition to tapping existing online reference sources over the mobile Web, members can leverage the wisdom of crowds to get answers when they really need them. Mobility also enables people to document their observations and thoughts immediately.

Relevance – Social networks deliver knowledge from trusted sources in a person's circle of friends. Location awareness makes it possible to target queries and messages to people within a defined geographic area, enabling groups of people to share experiences virtually.

Brevity – In social networks, this is often a virtue. Brief messages delivered by a mobile device are easier for others to absorb and respond to. This enables a more interactive and vibrant conversation.

Retrieval – Facts and conversations can be archived and retrieved later by participants or others, creating a kind of real-time archive of a social interaction.

Business Value and ROI

When interactivity is combined with unified communications and location awareness, next-generation social networks will have

significant business value. Unified communications integrates the wide variety of voice, data, video and collaboration tools that business professionals use today into a single environment. This can dramatically improve the speed of decision-making by connecting collaborators quickly, regardless of their location.

Social networking technology is so new that ROI models are only just emerging. While hard dollar numbers are scarce, early adopters are focusing on the following metrics and reporting positive early results:

Customer support savings – When customers solve problems or answer questions by consulting online databases or one another, they save on company support costs. Technology vendors learned long ago that by building databases of advice contributed by customers, they could slash support costs by up to half. Mobility promises to make this information easier to obtain and to disseminate to a wider variety of markets.

Logistical efficiency – By building a database of employee skills and matching it to location information, businesses can more quickly deploy the right resources to their customers on a timely basis. This leads to cost savings and revenue opportunities that would have previously been missed.

Reduced training expenses – With some 80 million Americans expected to reach retirement age over the next 15 years, knowledge preservation is becoming a critical issue. Social networks enable employees to populate their own profiles and make it easy for businesses to capture interactions between employees and customers into a kind of corporate memory.

Marketing benefits – Word-of-mouth marketing is the most credible and cost-efficient form of promotion. Businesses that make it easy for their customers to recommend products and services to their peers can reap great benefit from the resulting "buzz."

Participants can also leverage the tools that are most appropriate to the task at hand to enable a decision. For example, a group may initiate a discussion by text message and then move quickly to a voice or video conference supplemented by a shared whiteboard. Unified communications also authenticates users for secure communications. "I can link my device directly to a PBX," says RIM's Heit. "Mobilizing corporate resources such as this needs to be, and can be, done in a trusted and secure manner."

This is an example of a social network in action. Many businesses are implementing unified communications today, but the added dimension of location can enrich the value of the application.

For example, consider how a logistics management company could apply these technologies. A client manager might initiate a virtual meeting with field-level supervisors and delivery personnel over a conference bridge. If the client was shipping an unusually large or delicate product, specifications and images could be transmitted to participants in near real-time. If the client needed to make a sudden rush shipment, the appropriate field units could be identified based on proximity and dispatched to the client's location armed with all the necessary details. Members of the team could even be tracked for billing purposes. *Computerworld* recently wrote about a logistics application involving J.B. Hunt Transport Services' use of global positioning systems to deliver the latest installment in the *Harry Potter* book series for a successful, timed nationwide release.

Technology Evolution

Much of the technology needed to enable the kinds of applications described above already exists. Processors and memory have sufficient capacity to handle all but the most taxing tasks. "My current BlackBerry® smartphone is more powerful than my PC of just a few short years ago," notes RIM's Heit. Network bandwidth is evolving more slowly due to equipment incompatibilities and a lack of carrier standards in the U.S. However, progress is being made in those areas and the goal of universal, interchangeable network access looks increasingly achievable. Location awareness is already standard on high-end handsets and should quickly spread to the mainstream market as chip prices decline.

The challenges are in the areas of displays and input, where the handheld form factor presents some structural barriers. Displays have improved greatly in recent years, but a handheld device will never match the quality of a desktop monitor. "No matter how good you make a browser on a phone, it's never going to deliver a PC experience," says ABI's Burden. "You can't make the screen any larger, but you can make viewing space larger."

Handheld input using hard and "soft" keypads has evolved to the point that some skilled users can achieve speeds of 20 words per minute. The best hope for improvement in data input is voice recognition. This feature has long been used in mobile devices for a limited instruction set, but with commercial PC-based voice recognition products approaching 99% accuracy after training, it's likely that this technology will be viable in mobile devices before long.

Devices will also offer more support for rich media. Cameras, which were once a high-end luxury in cell phones, are a standard feature today. In fact, some new handheld devices are shipping with two cameras so that one can be trained on the speaker while another records a scene. Full-motion video will also be standard within a few years. This will enable individuals to become, in effect, video producers, with social networks supporting live video feeds.

Envisioning the Future

The one unchanging truth of information technology is that disruptive change manifests itself in unanticipated ways. It is likely that the changes that will result from the spread of mobile social networks aren't even imaginable today.

Within a few years, billions of people worldwide will carry handheld devices that are capable of capturing full-motion video and transmitting those images in near real-time to friends and institutions. Our concept of event "coverage," which has been shaped by decades of network television, will change. Sporting events, political rallies, business meetings, community festivities and every other kind of social gathering will be documented by participants and observers. The sounds and images that they capture will be collected and disseminated by media organizations that specialize in leveraging the power of loosely organized communities. Events that never would have been documented in the past — ranging from Little League games to presentations by corporate executives — will be captured as digital sounds and images, and saved to servers for others to share. Powerful software will enable organizations to stitch together images captured by multiple mobile devices into a kind of three-dimensional tapestry of unprecedented richness. The concept of an online map will evolve into a virtual world that is constantly updated by contributions from observers. These collages will be overlaid on an ongoing conversation among colleagues, vendors, temporary acquaintances and total strangers who come together to share their perspectives on their situation and their surroundings.

For businesses, the applications are exciting. An auto manufacturer, for example, could combine images uploaded by field service technicians to quickly identify possible defects and make production changes more quickly. A retailer could check on the quality of store promotions by viewing images or videos sent by on-site personnel.

Businesses will be the most enthusiastic adopters of mobile social networks. They will build knowledge maps on a foundation of expertise contributed by employees and business partners, and enriched by data captured from projects, experiences and observations of others. Workforces will grow more distributed as the network replaces the office as the lifeline of information. Logistics will become more efficient, and group interactions faster and more flexible. We will come to expect information to be at our fingertips — in the literal sense — more so than we already do.

Regardless of where information comes from, the mobile social networks of the future will give users nearly unlimited choice over how they choose to share and consume information. The ecosystem that develops around the next generation of handheld devices will make applications that once seemed fantastic a part of everyday life. «

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