MOBILE TECHNOLOGY

Making Connections, Here and Now

SOUNDS Yellow Arrow is a program that uses text messages and stickers to link to real-world sites. A sticker at the Children's Animal Farm in Copenhagen has a message from Mai Christiansen, a mayoral candidate.

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MORE and more cellphones know exactly where their owners are at any given time, and software developers are trying to leverage that ability to bridge the gap between the physical and virtual worlds. These programs aim to "browse" the physical space around you, connecting you to people, places and unexpected bits of information.

The programs, collectively labeled mobile social software, are part of the broader genre of location-based services. They allow users of cellphones and other mobile devices to view or retrieve material created by someone else, or to connect with the users, based on time and geographical location.

To the extent that the programs are successful, they are birthing a hybrid that cognoscenti call the geospatial Web, the Internet overlaid on the real world.

One of the first pieces of mobile social software was Dodgeball (dodgeball.com), which sends registered participants text messages when other participants (or their friends) are nearby. Dodgeball, which was introduced in 2004, was recently acquired by Google, a sign that such programs may be gaining traction. Others like it are appearing around the country and expanding on the concept.

These programs are in their infancy, now being used mainly by technology aficionados, but their potential is vast. In the future, users may subscribe to the mobile posts of bloggers who review neighborhood lunch spots or to business travelers...
who share city-specific survival tips. On the Web, your location may not matter, but on the geospatial Web, location is crucial in determining the kind of information you will receive.

Yellow Arrow (yellowarrow.net) is a program that uses real-world stickers and text messages to link multimedia content to physical space. Higher-tech options exist, like automatically sending content associated with a spot to anybody who carries a cellphone past it. But Yellow Arrow's co-founder, Christopher Allen, said he chose text messages and stickers, the "lowest common denominator" approach, to make the project as accessible as possible. It appears to have worked as users have posted 50,000 arrows and messages in the year and a half of the project, he said.

Yellow Arrow played a bit part in City Council elections in Copenhagen last November. The South Harbor Voices project encouraged mayoral candidates to walk around the South Harbor district and place stickers pointing to neighborhood features. Using text messages, passers-by could retrieve candidates' thoughts by sending a message to the addresses on the stickers, then add their own thoughts as they might add comments to a blog.

"The stickers and the messages are permanent," said Mai Christiansen, an unsuccessful candidate who posted yellow arrows bemoaning an underdeveloped square and cheering a community stable. "It's words politicians can't run away from."

More recent projects include Socialight (socialight.com), which lets users put virtual Post-it notes in places where other users can see them; Rabble (rabble.com), a mobile blogging tool that allows posts to be linked to a location (think of a mobile MySpace); and StreetHive (streethive.com), which combines the virtual Post-it idea with social networking à la Dodgeball.

What the industry calls passive location awareness on the part of cellphones is critical to growth in mobile social software. It simply means that a phone knows where it is because it is equipped with technology like a Global Positioning System. Most current location-based services do not automatically keep track of where you are; you need to tell them by sending a text message. Passive awareness in your cellphone, by contrast, lets sites like Socialight or Dodgeball keep track of where you are all the time and send you relevant information posted by others.

But getting passive awareness on your phone is not easy. The federal government's Enhanced 911 directive requires all new cellphones to report location during a 911 call, spurring phone makers to integrate G.P.S. and other location technologies. But cellular carriers have mostly refused to make location information widely available to outsiders. Workarounds include phones that make G.P.S. readings accessible to the user, like many Sprint Nextel Boost handsets, and Wi-Fi positioning systems. But these are not widespread enough to be useful for this purpose.

Finally, cellphone users are suspicious of passive location awareness because they do not want to get unsolicited location-based text messages, or geospam, from advertisers as they pass stores.

But those who find the geospatial Web concept appealing have reason to hope for its continued development.

Rave Wireless, a student-focused mobile social service that allows students and faculty members to broadcast information that all students can access from their cellphones, began operation at Montclair State University in New Jersey in September and is being introduced in at least 10 universities this year. Rave Wireless expects to add social Post-it features in March.

Largely avoiding the advertising approach (some coupons from campus vendors are offered to participants), Rave has built a business model based on connecting universities with their...
students through handsets. It already has a deal with Sprint Nextel for location information and expects to sign with another carrier soon.

As for other mobile social programs, a press officer for Verizon Wireless suggested that in the future the company might let its customers use such services through an off-network, "trusted content provider" model.

And geospam? It may actually materialize, and even the developers of mobile software are not thrilled by the idea.

"The billboards are already there," said Mr. Allen of Yellow Arrow. "I don't need a message in my pocket to tell me McDonald's is around the corner."

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