CASE STUDY 9

A Survey of Text Message 'Infolines' *(South Africa, United Kingdom)*

A number of environmental groups are embracing text messaging as a means of engaging key stakeholders, whether in their capacity as community members or consumers. This case study surveys several of these initiatives.

FishMS: Alerting Consumers to Endangered Stocks

Imagine this scenario: A woman in Johannesburg, South Africa, stands at the fish counter in her local supermarket and texts the name of a fish to a phone number. Within seconds, she receives back information via a short text message informing her whether the fish is legally and sustainably harvested, and advising her whether "to tuck in, think twice or avoid completely."

The shopper is using FishMS, a text messaging-based service that provides point-of-sale information about the impact of fishing on fish stocks, enabling consumers to make informed choices about the seafood they purchase.

The Southern African Sustainable Seafood Initiative (SASSI), a project of the World Wildlife Fund South Africa, condensed available research on local fish stocks into wallet-sized cards that organized species into three color-coded categories: green for species that are not over-fished; orange for fish that are legal to sell, but where stocks are jeopardized; and red, indicating fish that are illegal to buy and sell in South Africa.

With the collaboration of local information technology company iVeri Payment Technology and their programmers, SASSI moved this system to a mobile platform, enabling a wider group of consumers to access more regularly updated data.

According to SASSI coordinator Jaco Barendse, mobile phones are "the ideal way to combine technology and information with the growing awareness that the ocean's resources aren't infinite." And because the data are interactive (unlike the wallet cards), FishMS also provides data about trends in consumer behavior. "We can see that the market is responsive, especially to press stories," he says. "If something was in the news about a certain type of fish, you can also see the spikes [in text-based queries about that fish] the next day."

Between December 2006 and February of 2008, the service received 30,000 queries from 7,254 individual users, indicating that some users send repeated queries.

Other Text Message 'Infolines': Climate Change, Healthy Toys, airTEXT

FishMS was the first of a growing number of environmental text message information services that use mobile technology to provide just-in-time information about the environmental impact of products and companies. Text message 'infolines' work when consumers text the name of a product or company to a short code (a five-digit phone number) to receive back information, providing 'just-in time' information at the point of purchase. For the information lines

Credit: FishMS

Environment

described here there are no costs to the consumer other than standard text message charges.

Climate Counts

One of these text message-based information services is the U.S.-based Climate Counts, which enables consumers to check companies' environmental sustainability ratings, and compare them with their competitors. The information, in the form of a scorecard that is delivered via text message back to the user, reflects the self-reported efforts of companies to address climate change.

Climate Counts has compiled an index based on whether companies have measured their climate 'footprint,' reduced their impact on global warming, supported (or suggested intent to block) progressive climate legislation, and publicly disclosed their climate actions. It is funded by U.S. yogurt company Stoneyfield and powered by Mobile Commons, a mobile vendor that provides the messaging technology.

Credit: HealthyToys

Healthy Toys

Healthy Toys is a project of two U.S. environmental organizations and Moms Rising, an advocacy organization. It enables parents or guardians to verify whether children's toys or products are safe to use. Users can send via text message the name of a toy or product and receive back information about the chemical content of toys. The database can be queried via mobile phone or the web, and contains more than 1,200 products.

airTEXT

Similarly, numerous air quality information services are available that push information about dangerous levels of pollution to citizens. In the United Kingdom (UK), airTEXT is a free air quality information service for people in London. Users who sign up for airTEXT receive voice or text message alerts when air pollution is forecast to be higher than normal. The service is aimed at people who suffer from heart and breathing problems, whose health or quality of life may be affected by air pollution. Similar services exist for specific locations in the United States.

Air Quality 'Infoline' Services

airTEXT (www.airtext.info/): When users register with the UK-based airTEXT service, they specify for which borough of London they'd like to receive information. When the pollution level for that borough reaches a moderate or high level of air pollution, they receive an alert from the system.

Arizona Department of Environmental Quality (ADEQ) text messaging alerts (www.azdeq.gov/sms.html): The ADEQ offers a text service that sends users alerts when there is a high pollution alert in the Greater Phoenix Area.

Ergo (www.urban-atmospheres.net/Experiments/Ergo/index.html): Ergo is a U.S.-based system that provides real-time air quality readings based on data from the Environmental Protection Agency. Users can receive daily messages with air quality information for a specific zip code or can receive a one-time reading for an area of their choice.

Unlike the text information services that function as a 'pull' service, where a consumer actively queries a database, most air quality information services function on a 'push' basis, that is, a consumer signs up and then automatically receives updates about dangerous air quality levels and pollution information via text message.

How 'Infoline' Services Work

All text infoline services rely on a platform to handle the query and delivery of messages, and a database that contains information pertaining to users' queries. When information is needed, a user actively queries a database via a text message keyword sent to a short code or a regular phone number. The user receives a text message response with the results from that database, customized to fit the 160-character limitation of most text messaging services. Alternatively, a user can sign up (such as on the Web) to receive text message alerts to his or her mobile phone.

Most text messaging infoline services also follow a similar model in how they convey results. Similar to the three-tiered system of FishMS' response–used to indicate whether a consumer should buy, consider, or abstain from buying a particular fish–Climate Counts uses a three-point scorecard to indicate whether a company is 'stuck,' 'starting,' or 'striding' in its efforts to lower its carbon footprint. Research shows that it is helpful to associate an indexed result with a recommended action. An air quality numeric value, for example, is not as useful as a message that states "unhealthful air, stay inside."

Challenges: Managing an Effective 'Infoline' Service

For groups with limited funds, text messaging infoline services can be expensive to set up and maintain. Gathering and compiling comprehensive data that are

reliable, well indexed, and ready for queries are not simple tasks. In fact, all of the services profiled here already had data compiled and available through other channels, such as in print or on the Web. And all groups already had made considerable investments in collecting, verifying, and organizing this information. For these groups, all that was needed was to make the data they already had available via a mobile channel.

Another cost to consider is the fee to the vendor that provides the delivery platform. Vendor costs range widely, depending on country and complexity of delivery, but average a few thousand U.S. dollars per month. Lastly, groups need to consider the transmission costs for communicating via text messaging with their constituents. Obviously, the more popular an infoline service, the more text messages need to be sent to consumers and the higher the message delivery charges will be. In-kind donations from telecommunications providers can drive these costs down, but this strategy can also raise questions about project sustainability.

There are also significant social marketing challenges that limit user uptake. Non-governmental organizations offering these infoline services must deploy an intensive

and effective marketing campaign to get consumers to remember to use the service, and which number to text to. Another limiting factor is that aggregating reliable and accurate data on hundreds or thousands of products, services, companies, or other data points is very expensive and time-consuming.[19] Climate Count's database, for example, so far includes climate change information on only 56 companies.

Next Steps: The Future of 'Infolines' Advocacy

At the present time there is still little evidence to demonstrate that these services are actually changing consumer behavior. Overall usage, measured by total number of subscribers to infoline services described in this case study, is small, ranging only in the thousands. Yet the potential of this tool is clear.

Just-in-time information sharing via text message infolines, as in the case of FishMS, can transform consumers into activists whose purchasing power can exert pressure on retailers or fishing companies. Groups considering using an infoline service should ask themselves not only what information they want to relay to the consumer, but also what further steps they recommend the consumer take. In the final analysis, the real value of these services will be judged by their ability to use information to change behavior, resulting in concrete and measurable actions by consumers and other constituents. ■

mobGAS: Tracking Greenhouse Gas Emissions

A mobile application called mobGAS can be used to track individual emissions of greenhouse gases. The application, developed by scientists at the European Commission's Joint Research Centre, tracks the emissions of carbon dioxide, nitrous oxide, and methane based on information on daily activities entered by the user. Users can enter the information on a website or their mobile phone and then compare their emissions with national and international averages.

The application is particularly useful on mobile phones because users can enter data about activities that cause emissions–like watching television, driving, or cooking–at any time. By helping users make connections between their daily activities and greenhouse gas emissions, mobGAS hopes to encourage individuals to make lifestyle changes. The application also offers tips on how to modify activities to decrease emissions.

According to Tiago de Sousa Pedrosa, a project coordinator, mobGAS was downloaded more than 3,000 times between December 2007 and February 2008. By raising awareness of individual emissions, mobGAS hopes that the application can spark higher-level change.

[19] A team at the University of California at Berkeley (United States), is compiling a massive database of the health and environmental impact of thousands of products and services. This meta-database would be accessible to environmental advocacy and consumer organizations worldwide, decreasing the relative costs to individual organizations of having to aggregate this information themselves.