Recycling Online

Smartphones and recycling – Part 1

by Roger Guttentag

Periodically big technological changes occur that profoundly change all aspects of our commerce and culture. One such change occurred in 1995 when commercial activities were allowed on the Internet, which lead to the destruction of old business models and the creation of more productive new ones – as well as the evolution of novel public interactions such as social networking. We are now seeing the emergence of another sea change that is resulting from the steady migration of online users to mobile platforms that are based on smartphone (devices that combine telephone and data management features) and tablet technologies. We are only beginning to ascertain what the long term consequences of this shift are and where it will be taking us. In this month's column, I will focus on why smartphones as an outreach and advocacy venue should be attracting the attention of recycling and waste reduction program operators. After all, if we want to reach hearts and minds, then we need to follow the eyeballs that are attached to them. I will also provide illustrations this month and the next of how public and private recycling programs are trying to harness the power of smartphone technologies.

The smartphone world arrives

Smartphone devices were marketed as early as 2001. However, the smartphone market that exists currently got its start in 2007, when Apple released the iPhone, which was the one of the first smartphones to use an operating system (OS) with a touch interface for accessing its various features. This was followed up in 2008 by Apple's creation of its App Store that allowed users to download third-party software applications through Wi-Fi or cellular networks. That same year, the first smartphones to use the Android OS, developed by Google, started making their appearance.

When Nielsen looked at the mobile phone market for the third quarter of 2010, the smartphone share was at 28 percent. By June 2012, the market share of mobile phone subscribers using smartphones jumped to 55 percent, with the majority of these devices running on either the Android OS (55 percent share) or Apple's iOS (36 percent share). When the same data is parsed with respect to specific age groups, the smartphone share of total mobile phone subscribers in the 18-44 age brackets rises into the 74-to-80 percent range. Data obtained from the Pew Research Center's Internet & American Life Project largely agrees with these findings. One of the principal reasons for this rapid growth can be accounted by Nielsen's report – as of the 2nd quarter of 2012, about two-thirds of new phone purchases are for smartphone devices.

Smartphones with appitude

The expansion of the smartphone share of the mobile phone market has been matched by the dramatic increases in the number of software applications (also called apps) that have been developed for these devices to accomplish specific tasks. The two main smartphone OS's currently have over 1 million apps, and this number continues to grow rapidly. The principal search and download sites for these apps on the Web are Apple's iTunes App Store and Google Play.

In 2010, Nielsen noted that the top app category was games followed by weather, map searching, social networking and music. However, Nielsen's "State of the Appnation" shows that in 2012 smartphone users are both downloading more apps and spending additional time using them. For example, the number of apps downloaded to smartphones increased by 28 percent (from 32 to 41 percent) and the time spent using them instead of the mobile Web also increased. This suggests that users are show-

Web Address Directory

Android Tapp (app reviews)	http://www.androidtapp.com/
Apple iTunes App Store	http://tinyurl.com/AppleiOSAppStore
Appolicious (Android app reviews)	http://www.androidapps.com/
Google Play (Android app downloads)	https://play.google.com/store/apps
iOS App Review site listing	http://tinyurl.com/iOSAppRev
iRecycle (app)	http://earth911.com/irecycle/
MacWorld iPhone app reviews	http://tinyurl.com/MacWorldAppRev
My Recycle List (app)	http://1800recycling.com/mobile/
Nielsen Wire – America's New Mobile Majority	http://tinyurl.com/NielsenWireSP
Nielsen Wire – New Mobile Buyers	http://tinyurl.com/NielsenWireMobile
Nielsen Wire – State of the Appnation	http://tinyurl.com/NielsenWireApp
Pew Internet Project	http://tinyurl.com/PewIntPr

ing more interest in finding additional uses for their smartphones.

Finding the right app

There are a number of search and review websites for the iOS and Android platforms that can be used for identifying the best ones that have developed for specific users or features. Some examples are listed in the Web address directory at the end of this column. All of them can be searched using either keywords or by browsing specific categories. Their content is often supplemented by other content such as news stories or videos.

Recycling has an app for that

Probably the most obvious way to use the smartphone to encourage recycling is by providing apps that help users to locate recycling opportunities in their community. The following examples are available for both iPhone and Android users (the app descriptions are based on the iPhone version). Both apps also ask you to use the GPS feature of your smartphone in order to access all their functions.

iRecycle

The home screen of *iRecycle*, developed by Earth911.com, presents you with two main choices: Recycle Something or Read Something. Selecting the former takes you to a screen with 12 material category choices. If you choose "Electronics," for example, you then go to a listing of specific products. Choosing any of them, such as CRT monitors, leads to a list that shows all your recycling options in increasing distance from your current location. Select "Modify" if you want a search done on the basis of a different material or location. "Read Something," in contrast, provides you access to the mobile Web version of different news stories from the Earth911 site.

My Recycle List

My Recycle List's developer, 1-800-Recycling.com, describes it as a recycling search engine locator. You are presented with four menu choices: "Categories," "Locations," "My Recycle List "and "Options." You start by selecting materials you want to recycle from the "Categories" view. There are nine "Material" categories such as "Plastic," "Electronics" and "Yard." Tapping on a category leads to list of specific products that you can select individually. Once you select what you want to recycle, tap on the "Location" button to see where you need to go. The "My Recycle List" shows you your complete recycling list, while Options allows you to specify which zip code you want to use for location purposes.

Next month

I will list additional types of smartphone apps that have been created for such purposes as publicizing municipal recycling schedules, helping the scrap industry market their materials and promoting the recycling of specific materials. In addition, I will describe how the scanning ability of smartphones is being used to enhance recycling public education and outreach.

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