

Mobile messaging in libraries

By Branko Zurkovic.

In North America, text messaging came relatively late but after 2005 the usage quickly grew. Text messaging is commonly used across all demographic age groups but it is most prevalent among teenagers and young adults, with some studies indicating that teenagers spend more time texting than talking¹. To connect with young patrons, libraries are in increasing numbers looking at extending available communications channels with text messaging.

Background

Mobile messaging, also called text messaging, SMS or texting is a global standard for exchange of short bits of information, up to 160 characters using mobile phones. This protocol was first used in mid-1990's but it quickly spread across the globe and shortly became the most commonly used communications medium known to people.



The success of SMS can be primarily attributed to its simplicity and ubiquity – it works on any cell phone in any country. It requires no special considerations or downloads, no Internet connectivity or fancy hardware. It is also cheap and simple to use.

SMS was initially used for person to person (P2P) communication, to send messages between friends. However, people quickly realized its value as a

medium through which messages can be sent to and from automated processes or applications (A2P). In this mode, short and time sensitive pieces of information can be sent to large groups of people. For example, a school district can send an alert to parents or students and alert them of school closure due to bad weather, a company may contact on-call staff to inform them of an immediate job opening, a store can send a special promotional offer to its subscribers, a university library can inform subscribed patrons of a seminar, or send late notice notifications to book borrowers.



Branko Zurkovic

How Does SMS work in/for Libraries?

A text messaging service in a library environment is most commonly offered as a cloud service with no hardware or software to install and maintain. Such hosted service is offered by a third party provider and consists of an opt-in number, aggregation service that manages telecom connectivity to all wireless networks and a user messaging interface that provides security and functionality to librarians to receive text messages on their computers and reply back to the sender's mobile phone. This setup can be established quickly, most often in less than a day and with no technical knowledge.

Common Uses

Text messaging in library environment is most commonly used to:

- Reference service to receive questions from and send replies to patrons' mobile phones
- Remind library users when the books they ordered are available
- Remind patrons of late returns/fines
- Create mobile groups (for example reading club, author night, special events), enable subscriptions to such groups and send timely mass messages to group members

Types of Opt-in Numbers

Opt-in number is the entry point through which text messages arrive into the system and through which text messages are sent back to the patrons' phones. There are several types available. The chart below explains their characteristics:

Type of Opt-in number	Dedicated Short Code	Shared Short Code	Dedicated Long Code	Shared Long Code
Length of opt-in number	5-6 digit long	5-6 digits long	10 digits long	10 digits long
Ownership	Dedicated to one user – no keywords necessary. All messages received by the short code belong to the owner	Shared among many users. Patrons must prefix questions by a keyword, otherwise the question will not be delivered to the library	Dedicated to one user – no keywords necessary. All messages received by the short code belong to the owner (library)	Shared among many users. Messages must be prefixed by a keyword. Most cumbersome to use by patrons, susceptible to typing errors
Price	Price: Setup \$2000 Monthly: \$800 Messaging fees extra	Starting from \$30 per month, including some message fees	Starting from \$50 per month, include some messaging fees	Starting from \$25 per month
Throughput	High throughput, up to 10 SMS/s	High throughput, up to 10 SMS/s	Low throughput, up to 15 SMS/min	Low throughput, up to 15 SMS/min
Max payload – max number of characters in message	136 characters	136 characters	160 characters	160 characters
Time needed to obtain the number	6-8 weeks	immediate	Few hours	immediate
Final considerations	Easiest to use by patrons but expensive. Not suitable for most library reference applications due to high cost	Relatively easy to use and inexpensive. Care needs to be taken to understand who else shares the short code. Suitable for most library reference applications	Relatively easy to use and inexpensive. Suitable for most library reference applications	No need to use – better suitable alternatives exist.

Considerations when adding text messaging to a Library's communication mix

There are several considerations that need to be addressed:

Staffing and Commitment

Text messaging is considered to be a real-time communications medium. The implication is that when a person sends a message, he or she expects almost immediate response. This means that the library considering introduction of text messaging as a medium to communicate with its patrons, it must first commit to having staff trained and committed to answering text message inquiries quickly.

Once the commitment is made, technology helps in aiding libraries to provide quick support while not overburdening their staff. Each account can be setup with an auto-responder which can answer

messages during off hours. When a patron sends a message off hours, the system responds immediately with a pre-programmed notice, usually thanking the patron for the query and explaining that the answer will be provided as soon as the library opens. A link to a web site can also be provided so that the patron can find answers to most frequently asked questions.

Training

Training is minimal because most library text messaging services use simple web interfaces that resemble web email services such as Gmail or Hotmail. It can be assumed that most librarians have sufficient experience in using such services in personal and business environment so that introduction of a similar interface used for text messaging is not a concern. Furthermore, most text message reference services seamlessly integrate with standard email or specialized library management information systems so that incoming questions

received through text messaging look identical to those received through other media (email, Twitter or proprietary systems).

Privacy

In some jurisdictions libraries are required to keep the communication with their patrons anonymous. This means that questions and answers cannot disclose patron's cell phone number. It is therefore important for the text message reference system to offer an option to anonymize communications by hiding cell phone numbers while allowing the system to communicate with the patron. In other words the system must know the number but it must keep it hidden from the operator. Operator/librarian sees a unique identifier, such as Patron_1234, which preserves history of communications but conceals the telephone number of the patron.

API

Integration with external services may be a priority to some libraries. This is accomplished through the use of Application Programming Interface (API), a set of published functions that external applications can call to receive incoming SMS requests and process outbound text messages. For example, an existing library membership system can be expanded to automatically send late book reminders to patrons' cell phones.

Dealing with long URLs

In many cases, a librarian may send a URL in the text message to further clarify the answer. Since maximum length of a text message is up to 160 characters long URLs cut into the useful payload of

the message. To deal with this issue a URL "shortener" can be used. Most services provide a special domain and a simple to use reference screen in which the librarian enters full URL and the system creates a short reference (for example txtr.us/23uew (13 characters)). This short URL is then inserted into the body of the message.

Promotion

In order to be successful, the service needs to be promoted to the audience. This can be done through a variety of traditional channels (bulletin boards, posters, brochures, pamphlets, bookmarks), interaction with staff, email announcements and social media. Also, within young audience word of mouth travels quickly. A successful promotion can be built on a shared video tutorial of the new service, coupled by a special prize awarded to one or more participants. For example: a poster can invite members of the target audience to learn more about the new service and get a chance to receive a free coffee shop gift card by sending a predefined keyword to the opt-in number.

Branko Zurkovic is the founder and CEO of [Upside Wireless](#). Upside is a global leader in the field and serves the needs of large multinational companies like Microsoft, Apple, Halliburton, EMC, government agencies as well as thousands of small and medium sized businesses. Since 2005, Upside has worked with a large number of public and postsecondary libraries in Canada, United States and Europe. Branko can be reached at bzurkovic@upsidewireless.com.

ⁱ Nielsen Study, October 2010, http://blog.nielsen.com/nielsenwire/online_mobile/u-s-teen-mobile-report-calling-yesterday-texting-today-using-apps-tomorrow/