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PATRON ENGAGEMENT AND MARKETING PRODUCTS AND SERVICES FOR PUBLIC LIBRARIES

Marshall Breeding

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Patron Engagement and Marketing Products and Services for Public Libraries

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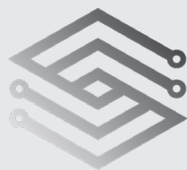
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Abstract

This issue of *Library Technology Reports* (vol. 58, no. 2), “Patron Engagement and Marketing Products and Services for Public Libraries,” provides an overview of the technology products currently available to support library outreach and marketing strategies. In response to public libraries’ interest in proactive marketing of their programs, services, and collections, a variety of new products have been introduced. Each takes a different approach in providing libraries with sophisticated tools to support marketing campaigns or other initiatives to strengthen engagement with their communities. Many involve harvesting data and producing analytics and visualizations that aim to provide insight into the strategic performance of the library and the effectiveness of its marketing efforts.

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Introduction

Technologies Supporting Library Marketing and Outreach

Public libraries naturally want to take any reasonable measures to ensure that their collections, programs, and services are well used by the members of the community. These institutions are highly valued and attract many visitors due to general awareness, even in the absence of proactive outreach efforts. Residents and visitors are aware of public libraries as a long-standing part of the fabric of local government services, but they may not necessarily know about the libraries' vast array of information and entertainment resources, programs, or other services.

Libraries attract physical and virtual visitors simply by providing high-quality content and services and relying on a basic level of general awareness. But many public libraries want to go beyond this passive approach, creating outreach and marketing strategies that aim to expand their reach into their communities and to strengthen the impact of their collections and services. Not only do public libraries strive to continually increase the number of persons served, but it's also important to build goodwill and support to help ensure strong funding for ongoing operations and needed expansions.

Library marketing strategies can rely on a variety of activities to help increase interest in and use of the library. Many libraries employ in-house marketing experts or take advantage of the services of specialized consultants. Either approach benefits from technology products that can perform analytics, automate sophisticated messaging channels, or carry out other tasks to support marketing and outreach strategies.

In recent years, a variety of products have been developed to support library outreach and marketing efforts. Careful use of statistics and analytics will describe current levels of use and identify areas of potential improvement. Such analysis would reveal important patterns, such as demographic segments using services at lower levels than expected, strengths and weaknesses of library collections across both print and digital formats, and the response to events,

Vocabulary Note

This report refers to the individuals who make use of the library as *patrons*. Alternative terms include *customers*, *clients*, or *users*. The terminology used on library websites, in articles, and in blog posts is inconsistent. Each term carries some negative connotations. Here, *patron* will be used for individuals who make use of library services and resources, with *customers* used to refer to those who take advantage of commercial products and services.

programs, exhibits, or special facilities such as maker-spaces. Analytics not only inform marketing strategies but also measure their impact. The tools, technologies, and personnel resources invested in marketing campaigns should have measurable strategic results.

Public libraries make use of analytical tools to inform operational strategies. It is essential to know areas of strength and weakness to allocate personnel resources and to invest capital resources. One important factor may involve focusing outreach or marketing activities on areas identified as underutilized.

Another area of significance relates to public interest in or perceptions of the library itself. Because libraries are funded mostly through taxes, ongoing budgets rely on politicians, administrators, and voters understanding the essential services they provide to the community. Analytics inform decision makers or stakeholders about how well the library performs its work and provide details about specific segments of the community that benefit from materials and services offered through the library.

Tapping into patron data in support of personalized services or marketing campaigns raises privacy concerns. This report will discuss privacy in the library context and examine each product's approach to the collection, use, and sharing of patron data. As libraries consider any technical solution related to patron

data, they must ensure that it conforms to their privacy policies and those of their parent organizations.

This issue of *Library Technology Reports* provides an overview of the technology products currently available to support library outreach and marketing strategies. In response to public libraries' interest in proactive marketing of their programs, services, and collections, a variety of new products have been

introduced. Each takes a different approach in providing libraries with sophisticated tools to support marketing campaigns or other initiatives to strengthen engagement with their communities. Many involve harvesting data and producing analytics and visualizations that aim to provide insight into the strategic performance of the library and the effectiveness of its marketing efforts.

Making Contact

Any marketing plan depends on contacting current and potential customers and presenting content designed to entice them to use the organization's products or services. Commercial businesses go to great lengths to assemble customer lists that can be used for marketing and promotion.

Effective marketing requires careful planning to send interesting content to carefully defined groups of users. General content blasted indiscriminately to all possible contacts is not likely to generate a positive response and may even be counterproductive. Library outreach and marketing tools tap into multiple sources of potential interested recipients, with the patron database of the integrated library system as a basic starting point.

Libraries may also be able to supplement the contacts available through their integrated library system. Additional sources may include registrations from library-sponsored programs. Some digital content products offered through the library may include online registrations, which can be converted into patron records. OverDrive, for example, works with the library to perform online registrations to gain access to its e-books and audiobooks. Most libraries acquire additional verification to turn these digital registrations into fully authorized patrons.

General or Topical Newsletters

As part of its ongoing marketing efforts, a library may create and distribute newsletters to its patrons. The newsletter may be manually produced, or it may be assembled from content components generated from event management applications, from the website, or from other sources.

Modular Content

A messaging strategy depends on fresh and relevant content. It is possible to compose the text for each piece of communication manually. This approach may work well in many scenarios, but it may not scale to high volume or sophisticated messaging strategies.

Content can also be managed in a modular way, based on small blocks of content and metadata. The content blocks may include text, images, or video describing a discrete event, a collection of library material, or a featured service. When tagged with appropriate metadata, such as a date range, topics, a targeted age level, or a relevant library location, these blocks can be assembled into a newsletter, landing page, or other marketing opportunity.

Segmentation

One of the basic concepts of business marketing relates to dividing the audience into segments to receive relevant messaging. There may be times when the library wants to distribute a general message to its entire database of patrons. A more effective model involves targeted marketing, where selected content is distributed to a narrower set of recipients who are likely to be interested and to respond to the invited action.

In the library context, segments can be dynamically created according to multiple factors:

- age categories: children, young adults, general, seniors
 - data source: ILS (integrated library system) patron record

- gender: probably not an appropriate segment in most cases
 - data source: ILS patron record
- geographic: neighborhoods, closest branch location
 - data source: ILS patron record
- topical: self-identified or inferred through content selections
 - data source: ILS borrowing history (opt-in)
 - data source: reading lists created (set by patron as public)
- activity: categories of use patterns based on the number of library interactions, such as items borrowed, programs attended
 - data source: ILS activity (counts versus specific items; may or may not require opt-in)

Looking beyond data generated within library systems, it is possible to create additional segments by combining library data with other data sources. Addresses from the patron records can be matched with census data and income data to identify additional segments. Such affinity groups as urban, suburban, rural, or demographics of specific neighborhoods may be helpful for planning and targeting library services. Using segments derived from blending library data with data from external sources for targeted marketing messaging may not be consistent with privacy policies.

Libraries must be very careful in how they create segments. Using content interactions as the basis of segmentation may violate privacy policies. A basic principle of library privacy protects any content viewed by a patron as confidential. Should a patron view an item of content, most library privacy policies would preclude using that information outside the bounds of confidentiality. Patrons may choose to enable use of their reading history for the benefit of receiving recommendations or other relevant content.

The Role of the Integrated Library System

The integrated library system provides the foundation for many aspects of the operation of a library. It manages a repository of data representing library patrons, primarily in support of its circulation features. Lending materials involves making links between records representing the item borrowed and a patron record.

Another standard capability of the circulation module of the ILS involves the transmission of notices related to active loans. The ILS will generate notices to library patrons for items not returned before their due date. The specific cycle of notices follows policies set by the library, usually beginning with a reminder that the item will soon be due, followed by notices at multiple intervals for items held past their due dates.

Finally, after a lengthier period, a notification may be sent stating that the item is considered lost and that the patron may be responsible for replacement costs.

The notices generated by the circulation module will follow the patterns and wording established in the technical configuration of the ILS. E-mail has largely replaced print messages sent through the postal service. Some libraries may also offer SMS as an alternative transmission. When a library offers multiple transmission options, patrons may set their preferences in their profile as well as updating e-mail addresses or phone numbers.

The built-in messaging capabilities of most ILS products are not necessarily designed to be sophisticated marketing or outreach tools. They follow specific business rules related to circulation events.

Automated marketing makes use of a different set of business rules to generate messages to library patrons. Rather than the punitive messages related to circulation notices, messages in support of marketing and outreach take a positive, invitational tone. These messages inform patrons about services, programs, or content that may be of interest to them.

Patron engagement tools for libraries generally include connectors to enable interoperability with the ILS to tap into the patron database or other relevant data elements. This interoperability usually takes the form of taking advantage of APIs exposed by the ILS or of the secure transfer of data files in batch processes. In some cases, the patron engagement tool is able to subsume the distribution of circulation notices that would otherwise be sent directly by the ILS.

ILS Patron Records: Core Data for Patron Interactions

Libraries can use the database of patrons managed through their integrated library system as a foundation for their marketing and outreach efforts. These records enable core features of a library management application, primarily related to circulation of and access to library materials.

Patron records contain personally identifiable information and therefore must be treated with extreme caution to ensure privacy. These records contain basic details such as names, e-mail addresses, phone numbers, and physical addresses and will assign a unique identifier. These records may also contain other identification data, such as driver's license numbers or other government-assigned identifiers. In the United States, most libraries have moved away from the practice of including Social Security numbers in patron records, but this was formerly a common practice.

It is also standard practice to record birth dates in the patron record. This information may be required

for minors for any age-restricted materials or programs. Information in categories such as gender, ethnicity, or marital status should be treated very carefully or not collected.

Security: Comprehensive Encryption

Patron records must be held securely to prevent unauthorized access. These records should be encrypted as they are stored within the system and transmitted only when full end-to-end encryption has been activated. Encrypted communication would apply to staff software accessing the system, such as for circulation activities; any information displayed via web browsers, such as when a patron views or updates their profile; or during any batch processing, such as importing or exporting patron records to external applications.

Patron Data Sources

Academic libraries usually receive comprehensive feeds of eligible users from other business systems. These include student information systems and payroll or other administrative systems for faculty and staff members. The core user records received from these external sources will be expanded in the integrated library system with additional fields needed for borrowing materials and using library services.

The number of active patron records held in an ILS will usually be a subset of the total residential population of its service area. One of the main goals of a public library's outreach or marketing effort involves increasing the proportion of registered patrons relative to the total eligible population.

Public libraries build their patron database through in-person or online registration. Eligible patrons include those residing within the library's legal service area. Unlike academic libraries, a public library would have no automatic feeds available to automatically populate its patron database from external sources. Although other municipal or county agencies may have their own databases of residents, these are usually not shared with a library.

Public libraries often must be sure that the individual applying for a library card physically resides within its legal service area. Since public libraries are funded through local taxes, they may have formal requirements to provide free services only to residents.

Patron Registration

Public libraries build their patron databases through the registration of eligible individuals. First-time library users will submit details to the library along

with any documentation required by library policy to confirm residency. Most libraries require in-person registration to be able to verify documentation.

It is also expected that an ILS will manage groups of records related to a family unit. It may be necessary to set up a record for a minor with a parent or other designated adult to be responsible for any payments or to receive copies of notices.

Some libraries offer online registration. This process may require additional tools beyond what is provided through the ILS patron management modules. An online registration service may perform several checks to ensure that the individual making the application is eligible. These validations include the following:

- Geolocation of the IP address of the device used to apply for the library card, ensuring it falls within the library's service area. This process has a low level of confidence since IP addresses are only loosely associated with physical locations. Virtual private networks or other network tools further complicate the association between a device and the person's physical location.
- Validation of the street address provided. Tools are available to determine that an address given in a registration application exists and is within the library's service area. This validation may not be adequate for some libraries since it does not confirm that the person resides at that address. It is not difficult to guess or look up a qualifying address.
- Other services that may perform more extensive validation processes that check to see if the individual represented in the online application matches any public or business records associated with the address. This type of online validation is not commonly implemented since it may involve the use of a paid commercial service and may not be accurate if the applicant has recently moved.

OverDrive offers a service for online digital registrations for public libraries. Libraries may opt in to this service to enable their patrons to gain immediate access to e-books without having to visit the library to verify their residency. It is common for a library to allow online registration for access only for e-books or other digital content, requiring an in-person visit to convert a digital registration into a full-featured library card.

Communication Channels

Libraries and other organizations transmit messages through several different communication channels. Each channel has its advantages and disadvantages.

E-mail Delivery Protocols and Standards

The July 2020 issue of *Smart Libraries Newsletter*, in response to a reader's question, addressed the technical characteristics directly relevant to e-mail distribution of notices and marketing communication.

“What are some of the e-mail transmission standards and protocols that a library should implement to ensure privacy and reliable delivery? Can libraries depend on reliable e-mail delivery for important communications such as circulation notices? How does e-mail fit into marketing campaigns?”

The main questions with e-mail concern are trust and reliability. How do you know that the message is from its stated sender? Is the message sent and received intact, or has it been intercepted and altered in transit? Is the message private, or can others intercept and read it? Does the message contain meaningful content, or has it been generated through bulk advertising? Does it contain malware or link to a malicious site with malware? Is it a message that tempts the receiver to divulge personal information or to fall prey to some type of scam? Many attacks rely on social engineering to take advantage of naive victims. All these scenarios are so common that they diminish trust in e-mail as a communications medium. Fortunately, the e-mail ecosystem has evolved to provide multiple layers of protection for each of these possible types of misuse. To be considered trustworthy, mail services must implement a complex set of protocols and standards that validate the identity of the sender and the integrity of the message and guard against most patterns of unwanted or dangerous solicitations.

Gmail, Microsoft Outlook and Exchange, Yahoo Mail, and other major providers of e-mail services have implemented sophisticated infrastructure based on the latest security practices and protocols to safely send and receive messages. Major mail services pass each message through sophisticated algorithms to categorize them according to risk level, automatically rejecting those that fall into obvious categories of unwanted mail and flagging those deemed suspicious. These services offer an option to automatically place suspicious messages into something like a “Junk E-mail” folder or to automatically delete them.

The Apache SpamAssassin, a widely implemented open source application for mail filtering, evaluates a complex list of factors to assign each message a score representing the likelihood that it is spam (see <https://spamassassin.apache.org>). Errors in technical implementation of mail delivery, suspicious patterns of content, or an origination from a source known to be associated with spam generation results in scores that may fall below the mail service's threshold for trustworthiness. There are circumstances where libraries need to

generate messages to their users or community members. Notices from the library's integrated library system are the classic example. Other scenarios include messages related to event registration, program announcements, or general marketing and publicity. The applications that generate these messages must be configured to format and transmit e-mail messages in strict conformance to the applicable standards and protocols and to follow practices that will ensure their classification as safe for delivery and not rejected as spam.

A number of standards and protocols are involved in the secure and reliable transmission of e-mail messages. Though a bit technical, it is important to have at least a general understanding of the e-mail ecosystem when implementing or evaluating products that involve the generation of e-mail messages to patrons or community members.

In order to generate an e-mail message, the application needs access to a message transfer agent (MTA) that uses the SMTP protocol to transfer the message to the intended recipient(s). Examples of MTAs include sendmail in the Unix environment or Exchange on Microsoft Windows servers. SMTP uses a series of conversational directives where the application provides mandatory header fields (To: From: Subject: Date:), optional supplemental fields, and the body of the message. It is essential to control access to the MTA by requiring some type of strong authentication before initiating a SMTP sequence. Failure to do so results in an “open relay,” which enables unauthorized agents to generate mail via the institution's domain.

Sender Policy Framework

SPF, or the Sender Policy Framework, describes a set of configuration practices that confirm that the MTA is authorized to deliver e-mail on behalf of the domain name representing the organization. This framework includes entries in the DNS (Domain Name System) configuration for that domain. Since DNS configuration details are strictly controlled and can be made only by authorized domain administrators, these configuration entries can be considered as trustworthy. Basic configuration details related to e-mail include the creation of an MX record specifying the mail server authorized for the domain and a PTR entry that enables a reverse DNS lookup, which is useful to e-mail validation. SPF goes beyond these basic DNS entries and involves the creation of a TXT entry in the DNS record for the domain that lists the IP addresses or domains of the authorized MTAs. Receiving mail systems will perform a DNS lookup that validates that the MTA that originated the message properly appears in a TXT entry for that domain. (Example: **librarytechnology.org. 37 IN TXT v=spf1 ip4:xx.xx.xx.xx**).

SPF provides a basic level of assurance that the e-mail agent that generated the message is authorized to do so, but does not address every possibility for abuse.

DomainKeys Identified Mail

DKIM, or DomainKeys Identified Mail, provides an additional layer of features that ensure the integrity of the message. It addresses the concern that the message received has not been modified in any way from its original form. DKIM accomplishes this validation via encryption technologies involving public and private keys. The application generating the e-mail message produces multiple cryptographic signatures that can be used to validate the integrity of the delivery headers and the body of the message. Hashes are generated using the private key, which is never shared publicly. The DKIM routines then insert an additional header into the message, which is used by the receiver to validate the message. Validation of a cryptographic hash requires access to the public key, which is published in the DNS entry in the sender's domain record in a TXT entry.

Example of a DKIM TXT entry:

```
dkim._domainkey.librarytechnology.org:  
v=DKIM1; k=rsa; p=MIIBljANBgkqhkiG9w0BAQEFAA  
OCAQ8AM IIBCgKCAQEAzFa1IAR3HZM6i44ksmv-  
vxOr BMztnCbYiqPXWnNijRoOg6x2CMwZPVaODsETp  
AfsIDff42j0tkPZ2Q0SYNJU6bG1KFKJSvsp+g6FAcnsI  
w3S SN6IDLATQS4zsjLTiZeS/WfsjRMcxL67usCuH80/  
fy BntOpiTnbOx5QmQpAittwGzctm6lCkHPB8h6oXiV  
jaab8XBRStOrhDUe76lLVkDr0ppllqhkf404mSOsow  
LfU6c5RDmcrYh5xij1sxS/apR/gzSdd4hSuaolMeeVX4+  
DHllsYLuPO4AsbkHVqn0djYIL6+rh/q70CYvID6 ZI40flh-  
vLjQ8QRmeUAGc3TwwlDAQAB;
```

Example of a DKIM signature provided in a message header:

```
DKIM-Signature: v=1; a=rsa-sha256; c=relaxed  
/relaxed; d=librarytechnology.org; h=to:from:subject:  
date:mime -version:content-type:content-transfer-en  
coding; s=dkim; bh=Xs6hjsnOsLry/yDSCPloYzsRK+dd  
fUi+o99n3sD7L gl=; b=S8EHFNpthh+A8phZuuQX1UT  
GyRK0koYo+gq Dt2gQC329sn2tMURGXiQUxSPbCvB  
7m3lgsUB4LuOp/ olZbz0lbUeVamQxkk6dKXGJbir8yhA  
0349jLzmLyNa ATX2DsLsGukpoLtEARPDYJ0r0kiJXWH  
iGXv1oAt 22ziFZMy57I724cQQw5RcaOct2HpFyfGNO  
CiW0AD +i+64UHxMThj25LKrDbQsbocjhPweWlpwkF  
7nCP D0kA36bNCyPCi8zmE0v9W3k+njA0vP0j+p0IT  
xTyl Y7cfSj9G7GUOR6jpsgLN4HjnPtKSt398FTHXpNg  
/ J58pEE7gQkOBUKkEhzQ==
```

This signature includes multiple components, including the DKIM version, the algorithm for canonicalization for message body and headers prior to generating the hash and signature, the selector referenced in

the DNS entry, and the base64 hashes for the message body and for the full message. The body hash applies only to the message body and can be validated without reference to the public key. If the body hash is valid, the receiving mail system will perform a DNS request to access the public key for validation of the digital signature of the message. If all these steps are successful, the DKIM signature is considered valid. Implementation of DKIM is a bit complex, but gives strong confidence to the integrity of the message.

Domain-based Message Authentication, Reporting and Conformance

Domain-based Message Authentication, Reporting and Conformance (DMARC) builds on SPF and DKIM, adding an additional layer that enables reporting and accountability in the e-mail ecosystem. Also implemented as a TXT entry in the DNS, DMARC aligns to existing SPF and DKIM entries and provides addresses to send and receive e-mail performance and exception reports. These reports enable a mail administrator to know if unauthorized or invalid messages were sent on behalf of their domain.

Multiple Interrelated Protocols Increase Trust

The implementation of this full suite of e-mail protocols can be a bit complex, even for experienced systems administrators. Fortunately, most libraries will not need to implement them directly. In most cases the vendor of the ILS, event management system, or automated marketing solution will attend to these details. Libraries should, however, require that these vendors demonstrate that these protocols have been implemented and produce fully validated messages. This is especially important if the messages are sent using the library's own domain, which is the preferred approach. Libraries would generally prefer that the messages sent on their behalf come from an e-mail address like circulation@mylibrary.org rather than something like circulation@mylibraryvendor.com.

These protocols and procedures provide a basic technical foundation for a library's e-mail messaging environment. With this foundation in place, e-mail can better serve as a component of an overall messaging strategy that includes other channels such as mobile messaging and social media. Many libraries are working toward communications strategies that go beyond support of transactional interactions, such as circulation notices, to also encompass broader campaigns in support of stronger engagement with existing patrons and to reach more broadly into their service community.

Marshall Breeding, "Smart Libraries Q&A," *Smart Libraries Newsletter* 40, no. 7 (2020): 4, <https://librarytechnology.org/document/25338>.

Printed Messages Sent through the Postal Service

Sending print messages incurs significant costs in terms of paper supplies, printer maintenance, postal fees, and personnel costs. A portion of notices will not be successfully delivered due to address changes. The proliferation of unsolicited mail reduces the chances that a notice received will be read.

E-mail

E-mail has become the primary means of communication between libraries and their patrons. The composition and distribution of e-mail messages can be entirely automated and do not involve direct costs. Delivery of e-mail messages will be hampered by changes in recipients' e-mail addresses, which are much more volatile than physical addresses. Delivery of e-mail cannot be guaranteed. Many destination e-mail services will reject messages that contain technical errors, that do not conform to all mail security protocols, or that are delivered through mail servers with insufficient reputation. E-mail can also be blocked through anti-spam services that recipients may subscribe to.

Some e-mail delivery services implement techniques that improve the delivery rates of messages and can track whether messages have been opened. These techniques include using the notifications for message receipt and message opening built into SMTP (Simple Mail Transfer Protocol). These receipt requests may or may not be honored by the recipient's mail service. Other techniques include tracking pixels that a mail messaging system can use to detect when a message has been viewed.

E-mail messages can be sent as plain text or can be formatted in HTML to enhance formatting and include images for a more visually appealing presentation. While most modern e-mail services support HTML formatting of mail messages, it is essential to create e-mail messages with both plain and HTML versions. The technical composition and delivery of e-mail messages with HTML formatting can be complex and may not be possible in some messaging environments, such as circulation notices generated from an ILS. Some of the marketing applications discussed later in this report can offload the circulation messages from an ILS and deliver visually appealing notices with graphics rather than the plain text messages that would otherwise be distributed. Messages including HTML content are assembled with the "Content-Type: multipart/alternative" mail headers, with strings that indicate the borders between the plain text and HTML versions of the message. These details illustrate the technical complexity involved in

creating visually appealing e-mail messages with high rates of successful delivery.

SMS

In many contexts, text messages received on mobile devices have supplanted e-mail as a preferred messaging channel. Many individuals have moved away from e-mail to text messages due to the excessively high rate of unsolicited e-mail. Delivering library messages via SMS involves additional technical components or paid services. These services usually charge a fee for each message delivered. For libraries with a high volume of message traffic, the costs can be significant. SMS messages tend to have a much higher success rate than e-mail, provided the library has current mobile phone numbers for its patrons. Notices sent via SMS must be succinct and direct and with no distracting formatting.

Transmission of library messages via SMS will usually be used only if specifically selected by the patron. Many individuals use text primarily for personal communications and may not want to receive other kinds of messages. Unsolicited messages have degraded e-mail as an effective communications medium, and text messaging may be similarly polluted as unwanted messages proliferate.

Library Use and Performance Data

Public libraries strive to assess the quality and quantity of their services. These statistics not only inform the administration of the library in the allocation of staffing and other resources but also are usually required by their boards as well as local, state, and federal agencies. Libraries collect statistics on many different areas of activity, such as the following:

- circulation transaction counts for check-outs, renewals, returns (ILS)
- web visits, segmented by resource and user characteristics (web logs and analytics)
- digital downloads for e-books and audiobooks (vendor usage reports)
- use of electronic resource packages (library ERM [electronic resource management] or LSP [library services platform] + vendor COUNTER statistics)
- print and electronic materials acquired (ILS acquisitions)
- materials weeded (ILS)
- number of programs offered and attendance (event management system)
- new patron registrations (ILS patron maintenance)
- detailed collection statistics and analytics (ILS or LSP analytics or third-party analytics like collectionHQ)

- registered patrons and demographics (ILS patron analytics, OrangeBoy Savannah, Gale Engage)
- entrance and exit counts for each library building (people counters, security gates)
- use of public computers (PC reservations application)
- Wi-Fi sessions (network analytics)
- use of makerspaces (informal statistics, sign-in data)

Statistics tracked over time present important information on the use patterns or trends needed to assess the impact of the library, to inform resource allocation in support of any given area of activity, and to guide outreach strategies. In an outreach and marketing context, much of this data can be used to identify areas of desired improvement and to measure the impact of marketing activities.

Privacy Concerns

Marketing or outreach activities must be consistent with any applicable privacy policies. Commercial marketing techniques make extensive use of personal information. Libraries must take a more tempered approach, ensuring protection of patron privacy. Any use of patron data must thoroughly conform to the privacy policies that govern how any personally identifiable data can be stored, accessed, used, or shared. Although privacy policies vary among different libraries or their parent organizations, there are some general prevailing concerns.

Any use of statistics must ensure the privacy of the individuals involved. To preserve patron privacy, reporting or analytics is usually based on fully anonymized data sets. Ideally, any data collected removes personal information before it is recorded. When personal details are needed for essential operational processes, the data sets can be anonymized as soon as transactions that require those details are concluded. Anonymization generally involves removing details identifying a person, but preserving the patron types, item categories, or other relevant nonpersonal data. The anonymization of transactional data should not significantly impede reporting and analysis.

Storage and Transmission

Any sensitive data should be encrypted to prevent unauthorized access. This technique ensures that even if an intruder gains access to the internals of the system, the data itself will not be accessible without the required digital credentials. Most modern database management systems have built-in capabilities to store data with encryption. When data is transmitted from one system to another or accessed through an application such as an ILS, use of encrypted protocols such as HTTPS provides strong protection from interception of data on the internet or other networks. Even if privacy policies do not address data encryption, this

level of protection falls within the area of standard security practices for any type of sensitive data.

Data Collection and Retention

Another type of data is created through the operation of a computer application. An integrated library system, for example, creates a record for every circulation transaction. These circulation records hold data relating to a specific patron and a collection item. These records are essential to managing borrowed items. The library needs to be able to track what items are in use and not available to other patrons and may need to contact the current borrower to send circulation notices. Most ILS catalogs offer the ability for the patron to sign in and view the status of all items currently borrowed.

In addition to the circulation transaction record, some ILS products include a field in an item record that retains the identity of the last patron who borrowed it. Patron records may also include fields that retain items charged or requested. This data may be related to reading lists, created automatically or at the option of the patron. Data related to a patron's use of an item may be created in many aspects of an ILS, and it is essential that all these representations of a circulation transaction be managed consistently according to privacy policies.

While it is necessary to maintain data linking a patron and an item during the course of the loan, another set of data retention issues apply once the item is returned. From a strict privacy perspective, no records should be retained that make it possible to reconstruct the use of that item by a specific patron at a specific period. These strict privacy practices prevent the disclosure of a patron's borrowing history, even when legally requested.

Rather than completely removing circulation transaction records, it is a common practice to replace

personally identifiable data with placeholders that may retain specific characteristics of the patron who borrowed the item, but not the specific identity. These anonymized circulation history records can be used for statistics and analytics while respecting privacy requirements.

Such a strict approach to privacy limits the data available to the library to deliver personalized services to its patrons and to implement some forms of marketing. The history of a patron's use of the collection gives important clues to topical interests that could be used for future reading recommendations or to send notifications of relevant library programs or new content acquisitions.

The most restrictive approach to privacy may hinder libraries from offering personalized services. Patrons may appreciate the ability to view the materials they have previously borrowed or other lists of items. Many ILS products give options for the retention of borrowing history or reading lists.

There are four approaches that libraries can take in relation to patron privacy:

- **Strict privacy:** The library configures the ILS to never retain circulation history in transaction files or borrower records.
- **Full retention:** The library configures the ILS to always retain circulation history in transaction files and borrower records. Libraries in corporate

or military settings may use this approach where no privacy of library use is expected.

- **Optional retention:** Patrons can choose to have the system retain their borrowing history and other data that may enable personalized services and their own ability to view lists of previously borrowed items. Unless the patron specifically opts in to retention, the system follows the strict model of privacy for transactions related to that account.
- **Optional privacy:** Patrons can choose to have the system remove or anonymize their borrowing history and to not be offered personalized services or be able to view lists of previously borrowed items. Unless the patron specifically opts in to strict privacy, the system follows the full retention model of privacy for transactions related to that account.

Which of these privacy models the library chooses will have an impact on its strategies for personalized services and marketing when using products that depend on circulation history data.

Even under the strictest privacy models, libraries can implement effective marketing and outreach services. The level of personalization and granular audience segmenting will be more limited than seen in the commercial arena, but the approach may be less intrusive and be better received by library patrons.

Assembling a Patron Engagement Ecosystem

Public libraries are increasingly interested in leveraging their existing technology environment and acquiring additional tools to execute outreach and marketing strategies. The integrated library system that manages the patron database plays an important role as the authoritative database of the individuals belonging to the community served by the library. The ILS patron database includes names and contact details and usually assigns general types or categories.

Targeted marketing campaigns benefit from a more granular segmentation of patron records. This segmentation can be performed algorithmically by analyzing the patron database along with additional data references regarding use patterns, inferred topical interests, or categories of interest provided by the patron.

Some type of content management tool contributes the text that will be included in each marketing campaign. This tool may be an editor to create individual message templates or a more sophisticated content management system that creates blocks of content that can be assembled and distributed across multiple channels, including the library website, newsletters, or marketing messages.

A messaging engine assembles and distributes content. This technical component processes lists of recipients, such as patrons defined within a segment; formats messages according to the context; and delivers them through the defined channels, such as e-mail or text message. The engine may also include capabilities to track messages distributed, including rejected messages; the proportions of messages read from each campaign; or other details that can be used to measure the success of the campaign and to identify errors in contact details.

This approach to marketing makes intensive use of data. Reporting and analytics play a key role in identifying areas of concern, analyzing relevant data to identify user segments, identifying strengths and

weaknesses in collections, and assessing the impact of marketing activities.

Patron engagement platforms may also include additional components, such as tools for scheduling, managing, and promoting library programs or events, online patron registration or validation services, or website content management platforms.

As seen in the group of products covered in this report, the specific components included in each product suite varies. As a library considers new technology tools for improving its patron outreach initiatives, important factors include which existing components it may wish to replace or whether it is interested in adding new capabilities to its existing environment.

Coverage of each product below includes any components within a library environment it is designed to replace and any interoperability scenarios. A key consideration involves which integrated library systems are supported. Some products work only with the ILS provided by the same vendor, and some are designed to work with any major product. OCLC Wise differs from the other products in that it entirely replaces the library's existing ILS.

Above all, libraries will consider the products with the capabilities best able to help them accomplish their strategic initiatives, such as improving outreach, boosting the number of registered patrons, increasing awareness of programs and services, or enhancing general awareness for voter initiatives or fundraising.

The development of patron engagement technologies (see figure 4.1) can be seen as one of the most important trends in the technology arena for public libraries. Previous phases of technology have focused mostly on back-office functions such as circulation, acquisitions, and cataloging. The ILS products supporting these functions have become mature with incredibly sophisticated functionality. Another wave of products was created to provide improved search and discovery interfaces for library patrons. These

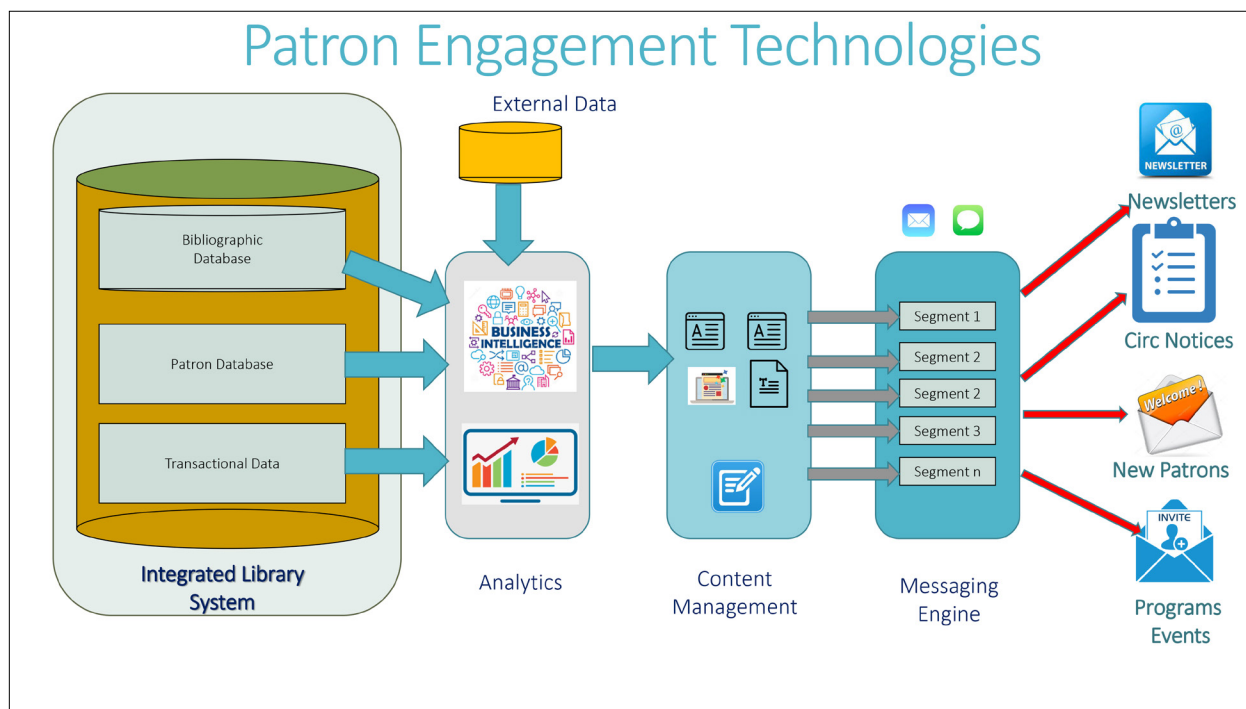


Figure 4.1
Patron engagement technologies

products represent an important step in improving and modernizing the experience for library patrons as they access library collections and services. The next step in the progression of public library technologies takes a more proactive approach toward the community served by the library. These patron engagement technologies reach out to community members to inform and invite participation. While modeled to a certain extent on marketing platforms used in the commercial sphere, these are library-specific products. They have been tuned to carry out marketing activities with the velocity and tone appropriate for libraries rather than the more invasive and aggressive nature of commercial advertising. Products designed for libraries are also configured to respect the distinctive concern for privacy inherent in these organizations.

Vendor Products to Support Outreach and Marketing

Several specialized products have been developed in recent years in response to public libraries' interest in advancing their marketing and outreach efforts. These products are designed to blend commercial marketing practices and technologies in ways that are consistent with public library requirements and sensitivities. These products have been developed to interact with technical systems used by libraries and

their data structures, which differ substantially from the typical business environment.

Almost all public libraries have implemented integrated library systems, which have an abundance of capabilities for managing and providing access to library collections. These systems manage the transactional operations of the library well but generally do not have capabilities to support sophisticated, multichannel messaging and marketing activities. This new wave of library marketing solutions adds a new layer of capabilities beyond the standard areas of functionality represented in the integrated library system. These products include advanced analytics, messaging engines, capabilities to segment patrons and other recipients, and tools for creating and managing the content for each marketing event. The components and capabilities for each product differ. Some may offer optional modules for patron registration, event management, or even full website replacement.

A questionnaire was sent to the vendors offering products in this category: BiblioCommons, Patron Point, SirsiDynix, Springshare, OrangeBoy, OCLC, Innovative Interfaces, and Gale Cengage. These organizations have made public announcements regarding the availability of products supporting patron engagement or automated marketing support. While every effort was made to identify the relevant vendors and products, this list should not be taken as comprehensive for libraries evaluating these types of products. The complete responses provided by the vendor are included

Table 4.1. Comparison of components in each product

Company	Product	E-mail / SMS Messaging	ILS Integration	Online Patron Registration	Patron Segmentation	Event Management	Patron Analytics	Collection Analytics	Messaging Campaigns	Personalization	Website Management
BiblioCommons	Digital Experience Platform (DXP)	✓	✓		✓	✓	#		✓	✓	✓
Patron Point	Patron Point	✓	✓	✓	✓		✓		✓	✓	#
SirsiDynix	Community Engagement Platform	✓	✓	#	✓	✓	✓	^	✓	✓	
Springshare	LibConnect	✓	✓	+	+	+	✓		✓	✓	+
OrangeBoy	Savannah	✓	✓	✓	✓		✓		✓	✓	
OCLC	OCLC Wise	✓	-	✓	✓	✓	✓	✓	✓	✓	✓
Innovative Interfaces	Vega Library Experience (LX) (including planned features)	^	✓	^	^	^	^	^	^	^	^
Gale	Gale Engage	#	✓		✓		✓	✓	#	#	
Gale	Gale Analytics		✓		✓		✓	✓			

Legend: ✓ = supported or included; * = optional; # = partial; ^ = planned functionality; + = through other products; - = not applicable

as given without extensive review of the capabilities claimed. These responses are intended to give readers a general understanding of the products. Libraries will naturally carefully review any products they consider for implementation. Tables 4.1 through 4.5 summarize the characteristics of each of the products.

Major Products

BiblioCommons Digital Experience Platform

BiblioCommons specializes in technologies related to patron interfaces and services. BiblioCommons was founded in 2007 by Beth Jefferson and Patrick Kennedy and is based in Toronto, Ontario. The company was acquired in February 2020 by Volaris Group, part of Constellation Software, Inc., which is also based in Toronto.

The company launched the discovery interface now known as BiblioCore in 2009, providing for online catalogs a modern replacement with social networking characteristics. BiblioWeb, introduced in 2019 under the name WebCMS, provides the entire web presence for a library. BiblioCommons offers BiblioWeb as a distinct, separately priced product for libraries using BiblioCore. It provides tools for creating and managing content components that can be distributed on the library website in multiple contexts. BiblioWeb enables library workers without expertise in technical protocols

such as HTML, CSS, and JavaScript to assemble the pages that comprise the website. BiblioEmail taps into the content components created in BiblioWeb for inclusion in marketing campaigns, producing newsletters, announcements, or brochures. BiblioWeb and BiblioEmail have converged as a single product offering. BiblioEvents is an optional and separately priced product for managing and promoting library programs and events and fully integrates with the other components of the BiblioCommons Digital Experience Platform.

BiblioCore replaces the library's existing online catalog interface. BiblioWeb replaces the entire library website. These products operate with the library's current integrated library system. BiblioCommons does not offer a full integrated library system and will operate with any of the major products used by public libraries.

In June 2019 BiblioCommons announced BiblioEmail as its new automated marketing product:

Connecting patrons to programs and services provided by public libraries is a fundamental goal of all libraries and their stakeholders. The most effective way for libraries to connect to users is via a holistic digital experience that includes engaging content, dynamic events listings, and relevant email communications. To that end, the team at BiblioCommons is pleased to share that BiblioEmail, the email marketing tool that was released in February of 2021, is now included with

Table 4.2. General product descriptions

Company	Product	General Description (provided by vendor)
BiblioCommons	Digital Experience Platform (DXP)	BiblioEmail and Personalized Promotions are a part of the BiblioCommons Digital Experience Platform (DXP). The DXP seamlessly integrates the patron engagement capabilities of BiblioWeb, BiblioEvents, and BiblioEmail into powerful and enriching digital experiences and touchpoints that are based on the web content management environment. In addition to providing the DXP as part of BiblioWeb, the BiblioTeam is building out functionality to make BiblioEmail and Personalized Promotions available to libraries that subscribe only to the Biblio-Core catalog without BiblioWeb as well.
Patron Point	Patron Point	Patron Point is a fully featured marketing automation platform, exclusively for public libraries, that connects with your ILS and other data, allowing you to segment your patrons in any number of ways based on data and harness the power of automation in your day-to-day customer messaging.
SirsiDynix	Community Engagement Platform	The Community Engagement Platform is a library marketing tool built with your needs in mind. Combine data from your ILS to strengthen and empower your library's marketing.
Springshare	LibConnect	LibConnect, a unique platform marrying its existing LibCRM product's functionality with fully featured e-mail marketing and engagement capabilities.
OrangeBoy	Savannah	Savannah is a cloud-based community engagement platform, backed by market-leading analytics and a team of dedicated, experienced professionals, that is designed exclusively to help you connect with your community in new, meaningful ways.
OCLC	OCLC Wise	Uniquely holistic in its design, OCLC Wise combines the power of customer relationship management, a communication suite (including marketing), a smart collection analysis and recommendation engine, analytics, and user-generated content, all within the features of a 21st-century library management solution. This transformative community engagement system, which created the category, empowers libraries to strengthen current customer relationships, build new connections with the wider community, and better meet changing community needs.
Innovative Interfaces	Vega Library Experience (LX) platform	The Vega Library Experience (LX) platform is a suite of modules that provide an end-to-end experience for libraries through seamless integration with the Sierra and Polaris ILSs.

Table 4.3. Implementation models

Company	Product	Implementation Model
BiblioCommons	Digital Experience Platform (DXP)	Suite of interrelated SaaS products: discovery, website management, e-mail messaging. Integrates with most ILS products.
Patron Point	Patron Point	Stand-alone SaaS application. Integrates with any ILS.
SirsiDynix	Community Engagement Platform	New product that works with Symphony and Horizon.
Springshare	LibConnect	A new product leveraging existing Springshare applications that can be integrated with any major ILS product. Major products used by academic libraries currently supported.
OrangeBoy	Savannah	SaaS application that can work with any ILS.
OCLC	OCLC Wise	A comprehensive system that includes patron engagement functionality and ILS capabilities. OCLC Wise replaces the library's existing ILS.
Innovative Interfaces	Vega Library Experience (LX) platform	A web-based platform that operates with Sierra or Polaris. Vega Discovery serves as a discovery interface; other modules will address website and outreach capabilities.
Gale	Gale Engage	A suite of analytical tools that can use data extracted from any ILS.

BiblioWeb, the most robust content management system and webpage builder for public libraries.

The ability to repurpose content that has already been created in BiblioWeb is BiblioEmail's most notable feature. BiblioEmail intelligently pulls all

of the library's content into email campaigns and newsletter templates tailored to email subscribers' preferred interests, location, and age groups. Libraries can create sophisticated email campaign workflows or use the pre-loaded out-of-the-box drip campaign templates.¹

Table 4.4. Product introduction dates and installation counts

Company	Product	Year Introduced	Implementations
BiblioCommons	Digital Experience Platform (DXP)	2019	Total DXP: 57 BiblioEvents: 57 BiblioWeb: 45 BiblioEmail: 5
Patron Point	Patron Point	2016	400+
SirsiDynix	Community Engagement Platform	2020	new
Springshare	LibConnect	2021	new
OrangeBoy	Savannah	2014	not reported
OCLC	OCLC Wise	2018 (US only)	9 (500+ Netherlands and Flanders)
Innovative Interfaces	Vega Library Experience (LX) platform	2020	24 (partial, currently using Vega Discovery)
Gale	Gale Engage	2019	not reported

Table 4.5. Major ILS products supported

Company	Product	Alma	Symphony	Horizon	Sierra	Polaris	Library.Solution	Carl.X	Koha	Evergreen	Spydus	Apollo	Atrium	OCLC Wise
BiblioCommons	Digital Experience Platform (DXP)		✓	✓	✓	✓		✓		✓				
Patron Point	Patron Point		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
SirsiDynix	Community Engagement Platform		✓	✓										
Springshare	LibConnect	✓	✓		✓				✓					
OrangeBoy	Savannah		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
OCLC	OCLC Wise													✓
Innovative Interfaces	Vega Library Experience (LX) platform				✓	✓								

VENDOR RESPONSES

How Is Your Marketing Application Offered?

- **Delivered as functionally based on a web content management environment?** Yes. We provide the Digital Experience Platform (DXP) as part of BiblioWeb.
- **Other?** We are also developing an option for libraries who do not use BiblioWeb to utilize the DXP as part of the BiblioCore discovery layer.

Platform (DXP). The DXP seamlessly integrates the patron engagement capabilities of BiblioWeb, BiblioEvents, and BiblioEmail into powerful and enriching digital experiences and touchpoints that are based on the web content management environment. In addition to providing the DXP as part of BiblioWeb, the BiblioTeam is building out functionality to make BiblioEmail and Personalized Promotions available to libraries that only subscribe to the BiblioCore catalog without BiblioWeb as well.

Which ILS Products Does Your Product Support?

BiblioCommons is ILS vendor-agnostic. We currently support integrations with iii Sierra, iii Polaris, SirsiDynix Symphony, SirsiDynix Horizon, TLC Carl.X, and Evergreen.

Included or Optional Components

- **Event management system?** BiblioEvents is included with the DXP. It is available for an additional fee to all libraries using BiblioCore who are not currently subscribed to the DXP.
- **Room booking application?** BiblioEvents integrates with Springshare’s LibCal for room bookings, and customers can also purchase LibCal via BiblioCommons through an agreement with Springshare.
- **Patron registration service?** Patron registration functionality will be available in 2022.
- **Analytics and data visualizations**
 - **Messaging/marketing performance?** Yes.
 - **Library use analytics (describe general**

categories of library activities covered)?

Yes. Patron visits, content engagement, general patron online activity, patron engagement, i.e., holds placed, items placed on shelves, lists visited, most popular lists, and more.

- Full website replacement with an integrated content management system (CMS).
- **Other?** Content marketing within the catalog and beyond via “Personalized Promotions.” Personalized Promotions features visually rich cards promoting the library’s online resources, services, events, blog posts, recommendation lists, and more, based on the patron’s search terms, taxonomies, and more. Personalized Promotions started as a pilot project with Chicago Public Library to test the concept, and the results showed that Personalized Promotions significantly improved the awareness of library services and collections beyond promotions via social media channels. Personalized Promotions will be implemented at no additional cost to all libraries using the BiblioCommons DXP, and plans are underway to build out a module that libraries using just the BiblioCore catalog could subscribe to elements of the DXP as well. The next research project regarding Personalized Promotions will apply machine learning to further enhance patrons’ awareness of all that the library offers without sacrificing patron privacy.

Implementation Process

Please describe the general steps involved with implementing your solution, such as configuration, ILS integration, data transfers, etc.

Implementing BiblioEmail involves:

- Planning and preparation
- Training and set-up
- Segment migration and template creation
- Staff preview
- Public launch

A BiblioEmail implementation is estimated at about four months and can be completed alongside a BiblioWeb implementation or implemented separately later.

In 2022, BiblioCommons will be building out an ILS account integration with the BiblioEmail marketing component of the DXP. The process will be fully automated (currently, an ILS export is required).

One of the advantages of the BiblioCommons DXP is the integration and content repurpose-ability between BiblioWeb, BiblioEvents, BiblioCore, and BiblioEmail so that creating and managing personalized e-mail marketing campaigns do not require cutting and pasting content but rather leveraging existing content and images and taxonomies from BiblioWeb, BiblioCore, and BiblioEvents.

Services or Tools to Optimize Product Impact

As part of the standard implementation, BiblioCommons provides consulting for e-mail marketing best practices at no additional cost. Additionally, many resources are available in various formats, including:

- Training sessions
- Best practice articles
- Guides and templates
- Live and recorded webinars
- User group meetups

What channels does the application use for distribution of messages to recipients?

- **E-mail?** Yes.
- **SMS messaging?** Not currently planned.
- **iMessage?** Not currently planned.
- Library’s website.
- Library’s catalog.
- Library’s mobile apps (planned for 2022).

Are there per-message charges incurred?

No, there are no per-message charges incurred.

Patron Privacy

Describe what elements from the patron record of the ILS are incorporated into the application.

First name, last name, e-mail address, card expiry date.

Is there an opt-in mechanism to enable transfer of patron data?

- For new e-mail subscribers: The user subscribes and chooses preferences.
- For existing ILS contacts with e-mail addresses: The library controls the subscription status.

Is there an opt-out mechanism to disable transfer of patron data?

Patrons can choose to unsubscribe or update their preferences.

Which is used by default?

- **Opt-in?**
- **Opt-out?**
- **Specified by the library?** Yes—libraries can choose opt-in or opt-out options.

How does the application handle patron borrowing history?

Currently, BiblioCommons doesn’t leverage borrowing history for marketing purposes. Instead, patrons are able to select their preferences, such as audience, format, genre, topic, location.

Other?

BiblioCommons has a patron-facing Privacy Statement that is in the footer of all products, including the footer of e-mails that are sent. The Privacy Statement outlines how BiblioCommons uses patron information.

What other data sources are incorporated into personalization or analytics?

E-book access (overall or by specific patrons)? Digital holds, digital checkouts, digital downloads analytics.

Website use logs?

- Extensive custom analytic events, as well as standard events (page views).
- In a pilot project with King County Library System, BiblioCommons is also exploring machine learning to produce personalized recommendations for library services. By leveraging modular content, linked metadata, and patron behavioral data, a library can predict and promote the most relevant set of content and services to patrons as they navigate the library catalog.
- Contextual user data, such as catalog search term and facets applied, are leveraged to present the most relevant Personalized Promotions.

EZproxy or other proxy server logs? Single Sign On (SSO) log-ons including EZproxy, catalog, website, and event log-in analytics.

Patron participation in library programs from event manager? Program registrations; total attendance number/event analytics.

Other? Personalization based on user analytics (planned for 2022).

Collection Analysis

Does the application have a collection analysis component (assesses collection holdings relative to patron interests)? No.

Personalization

If the application uses topic or subject personalization, how are these categories determined?

- **Manually set by patron?** Yes.
- **Automatically inferred from previous use of library site?** Planned for 2022.
- In a pilot project with King County Library Systems, the machine learning functionality uses a patron's profile and their contextual data and combines them with anonymized behavioral click

data to predict and promote the most relevant content to increase user engagement.

What types of campaigns are supported?

- **Welcome messages for newly registered patrons?** Yes.
- **Messages for lapsed patrons?** Yes.
- **Messages promoting library programs or events?** Yes.
- **Generation of library newsletters—general?** Yes.
- **Specialized newsletters or brochures?** Yes.

Online Registration

How does the online registration validate residency or other requirements? Planned for 2022 (to be decided based on library requirements).

ILS Circulation Notice Replacement

Can the application replace the standard messaging functions of the circulation module of the ILS, such as sending notices for overdue items, hold notifications, almost-due notifications? On long-term road map.

External Data Sources

Can the application use external data sets in its marketing analysis or analytics, such as census data or other sources of demographic data? No.

Customer Relationship Management Integration

Does the application make use of a third-party customer CRM? No.

How Many Libraries Have Implemented Your Solution?

- BiblioWeb: Live or implementing—45
- BiblioEvents: Live or implementing—57
- Email: Live or implementing—5

Patron Point

Patron Point was established as a consultancy in 2016, originally under the name Third Chapter Partners, by Ted Fons, Gene Shimshock, and Tom Jacobson. Among other projects, the firm developed technologies to enable libraries to improve their marketing activities. This work culminated in the creation of Patron Point, now the company's core product.

Patron Point was introduced in 2017 as an advanced marketing automation tool specifically designed for public libraries. The product was initially implemented in the United States and Canada, with later deployments in New Zealand and Australia. In 2021 the company began offering its products to public libraries in the United Kingdom and Ireland. In February 2020,

Patron Point introduced Patron Point Verify, a verification service for online patron registration.

Patron Point operates with the library's existing integrated library system and discovery services. Libraries do not need to change these core systems to implement the marketing products and services from Patron Point.

VENDOR RESPONSES

How Is Your Marketing Application Offered?

As a stand-alone product—SaaS solution accessible from anywhere over the web. It fully integrates with ANY ILS and takes data from a wide range of third-party systems and integrates with all the major web content management applications.

Which ILS Products Does Your Product Support?

One of the MAJOR benefits of Patron Point is that it is totally ILS-agnostic and integrates with any ILS. This means if/when the library changes its ILS, it does not lose all its patron engagement data and have to start building engagement profiles from scratch.

We have public library customers on the following ILSs around the world:

- Biblionix: Apollo
- Book Systems: Atrium
- Civica: Spydus
- Evergreen
- Innovative Interfaces: Polaris
- Innovative Interfaces: Sierra
- Koha
- SirsiDynix: Horizon
- SirsiDynix: Symphony
- TLC: Carl.X
- TLC: Library.Solution

Please note that Patron Point works extremely well both in complex consortial environments as well as for stand-alone library systems.

Included or Optional Components

Patron Point offers a fully featured marketing automation platform and includes the following functionality:

- Easy-to-use, drag-and-drop e-mail editor
- Customizable templates and powerful dynamic content where every e-mail can be automatically personalized on-the-fly based on data
- Visual campaign builder to build marketing workflows
- Build web forms
- Build landing pages
- Create unlimited dynamic segments of your customer base in seconds
- Patron engagement scoring

Patron Point offers robust analytics and reporting with customizable dashboards and the ability to automatically schedule and share reports with colleagues via e-mails. Data can be easily exported into BI tools like Microsoft Power BI and Tableau for data analysis and visualizations.

Messaging/marketing performance is available at a very granular level, exploring channels, timings, devices, etc. We also provide A/B split testing functionality so that libraries can test and optimize their message engagement.

We believe that libraries should be able to work with best-of-breed solutions and applications. With Patron Point, you can bring in data from a wide range of industry-leading solutions such as:

- Event management systems, including those from Demco, Communico, Library Market, EventKeeper, Eventbrite, or your ILS system if it has one
- Room booking applications, including those from Demco, Communico, or your ILS system if it has one
- E-book platforms, including OverDrive, cloudLibrary, Axis 360, and BorrowBox
- Other digital resources, including Hoopla, Lynda.com, Kanopy, Freegal, and BiblioCommons

Other components included as standard components within Patron Point include:

- *Proven Programs:* Every Patron Point library gets access to our suite of Proven Programs. These are proven campaigns and workflows, based on industry best practices, that allow libraries to maximize their patron engagement in a number of ways.
- *Patron Registration Service:* As standard, we offer a sophisticated and highly customizable online registration service with sign-up forms, complete workflow integrated with the ILS to allow patrons to join the library both online and in branch.
- *Patron Notices:* Libraries can use Patron Point to replace their text-based ILS notices with a fully customizable sequence of branded notices that drive patron engagement and allow the library to cross-promote events, collections, etc.

Additional add-ons available:

- *Patron Point Recommends:* A personalized, subject-based monthly reading recommendation newsletter, based on highly rated new titles recently added to the library's collection. Available for all age ranges, we provide an opt-in form where customers can select their favorite subjects and e-mails are delivered automatically using the

library's branding and design templates. Developed in conjunction with ProQuest, it's a great way to drive circulation, help readers discover new titles, and save staff time.

- **Patron Point Verify:** Our online patron identity verification solution. This can be used to complement the library card sign-up and/or renewal process. Removes the need for the patron to come into the library with proof of identity and address.

Implementation Process

Describe the general steps involved with implementing your solution, such as configuration, ILS integration, data transfers, etc.

The configuration and implementation can be completed in a matter of days.

One of the first steps once we have the e-mail data is to validate the addresses. We pass back any invalid or bounced e-mail addresses, and this allows the library to cleanse its data.

We use Patron Sync, our real-time API interface to the ILS. Other data can either be connected using APIs or uploaded manually.

All data is transferred and stored securely and held and processed on our local servers for each country we serve.

Services or Tools to Optimize Product Impact

What services are available to assist libraries in making optimal use of the product? Are these services included in the annual maintenance or license fee?

All of our support and ongoing customer service and training are included within the annual subscription.

Following implementation, every customer receives structured onboarding which includes product orientation and a series of online training sessions.

During these sessions we explore which of our Proven Programs the library would like us to help it work on first. It is a very interactive engagement as many libraries look for support for their engagement activities and are keen to hear about best practices and compare metrics, etc.

They are assigned an Account Manager who will work closely with them to guide them through the Proven Programs and identify opportunities for them to utilize the solution to meet their strategic goals.

As well as access to our Online Portal, where they will find helpful how-to videos and user guides, they are enrolled into our Patron Point Community, where they get to meet and engage with other library managers and marketers via regular webinars and get information via our customer newsletters.

What channels does the application use for distribution of messages to recipients?

Patron Point is a true multichannel communication

platform. Libraries can send the following directly from the platform through e-mail, SMS, and tweets.

Are there per-message charges incurred?

We offer a fully inclusive package for e-mails, so libraries can create and send an unlimited number of e-mail messages with absolutely no overages. There is a per-message charge for SMS.

Patron Privacy

One topic covered concerns patron privacy. Marketing applications often rely on data from patron profiles for messaging and analytics. Describe what elements from the patron record of the ILS are incorporated into the application. This is entirely up to the library. Every Patron Point implementation is unique.

Is there an opt-in mechanism to enable transfer of patron data? Yes.

Which is used by default? Always specified by the library.

How does the application handle patron borrowing history? At the library's option, Patron Point can either not access this information at all or if required can provide a simple, yet effective tool called Predictive Preferences that can establish a patron's reading preference using circ history. The system works at the call number level bolstering preference sign-up rates while protecting patron confidentiality as much as possible.

What other data sources are incorporated into personalization or analytics?

- **E-book access (overall or by specific patrons)?** Yes, every patron or specific patrons.
- **Website use logs?** Yes, if the library wishes.
- **EZproxy or other proxy server logs?** Yes, if the library wishes.
- **Patron participation in library programs from event manager?** Yes, if the library wishes.

Collection Analysis

Does the application have a collection analysis component (assesses collection holdings relative to patron interests)?

See Borrowing History above.

Personalization

If the application uses topic or subject personalization, how are these categories determined?

- **Manually set by patron?** Yes.
- **Automatically inferred from previous use of library site?** Yes.

We can offer either, but in our experience, the vast majority of libraries prefer them to be manually set by the patron. Every Patron Point library is set up with a Preference Center—where patrons can update their contact details, update their preferences, subscribe/unsubscribe to various communications on offer from the library.

What types of campaigns are supported?

- **Welcome messages for newly registered patrons?** Yes.
- **Messages for lapsed patrons?** Yes.
- **Messages promoting library programs or events?** Yes.
- **Generation of library newsletters—general?** Yes.
- **Specialized newsletters or brochures?** Yes.

Many more types of campaigns are available within Patron Point as part of our Proven Programs such as:

- Library card renewal reminders
- Targeted campaigns to drive digital/resource usage
- Coming of Age campaigns to retain teenagers
- Anniversary e-mails
- Birthday e-mails
- Surveys, etc.

Online Registration

How does the online registration validate residency or other requirements?

Yes, see Patron Point Verify above.

ILS Circulation Notice Replacement

Can the application replace the standard messaging functions of the circulation module of the ILS, such as sending notices for overdue items, hold notifications, almost-due notifications?

Yes, Patron Point supports the full suite of ILS notices—see Notices above. With Patron Point, libraries can create their own notice workflow and cadence too: rather than just send one Hold Pick Up Reminder, they could choose to send 3—with 24 hours between each message.

External Data Sources

Can the application use external data sets in its marketing analysis or analytics, such as census data or other sources of demographic data?

Yes, absolutely. Any other data can be imported into Patron Point and used to segment the customer base. It is incredibly flexible and customizable. Custom fields can be created in seconds from the front end, and data can be quickly imported through the user interface. Segments can be built and executed in seconds too.

Customer Relationship Management Integration

Does the application make use of a third-party customer CRM?

No. However, Patron Point can integrate with a wide range of CRM solutions.

How Many Libraries Have Implemented Your Solution?

Over 400 public libraries around the world have implemented Patron Point either directly or through consortium systems.

We have implemented the solution in hundreds of public libraries around the world. These libraries represent a wide variety of scale, from single-building libraries through to very large and complex library consortia with a wide range of technology stacks and ILS systems.

SirsiDynix Customer Engagement Platform

SirsiDynix is a major library technology company offering two integrated library systems, Symphony and Horizon, each used by multiple types of libraries. The company has a major presence in North America and is also active in most global regions. Sirsi was founded in 1979 in Huntsville, Alabama, by Jim Young, Jacky Young, and Mike Murdock. Its initial ILS offering, Unicorn, was rebranded as Symphony in 2007. Sirsi Corporation merged with Dynix in 2005, acquiring its Horizon ILS. Beginning in about 2013 SirsiDynix began the development of BLUEcloud, a modern web-based platform that operates with both Symphony and Horizon to provide more modern functional workflows used by library personnel and to deliver new web-based interfaces for patrons. The Enterprise patron interface has been widely implemented by libraries using Symphony and Horizon.

SirsiDynix introduced its Customer Engagement Platform in August 2020, bringing in functionality previously delivered through other modules and offering new capabilities through a single cohesive product. The product includes program and event management, e-mail-based automated marketing, and related reports and analytics. The SirsiDynix CEP works with libraries using either Symphony or Horizon. Libraries do not need to change their ILS or discovery interface to use the product.

VENDOR RESPONSES

How Is Your Marketing Application Offered?

The Customer Engagement Platform uses data pulled from the ILS. It is delivered as two SaaS components: CEP Marketing (marketing automation) and CEP Events (calendar, events, registration, ticketing, room bookings). Medium- to long-term development plans include creating a two-way data sync between ILS and CEP components as well as a web content solution (library website).

Which ILS Products Does Your Product Support?

- SirsiDynix Symphony/BLUEcloud
- SirsiDynix Horizon

Included or Optional Components

- **Event management system?**
- **Room booking application?**
- **Patron registration service?**
- **Analytics and data visualizations?**
- **Messaging/marketing performance?**
- **Library use analytics?**
- **Other?**

All of the above. It can facilitate patron registration through our discovery product, Enterprise.

Implementation Process

Please describe the general steps involved with implementing your solution, such as configuration, ILS integration, data transfers, etc.

Instance creation is handled by our implementation and SaaS teams. CEP Marketing is connected to ILS data via API and auto-populated. The API and custom code synchronize data from ILS every six hours; short-term plans are to increase this to less than an hour. We have a questionnaire to collect info from libraries to maintain branding across new digital assets in starter kit including e-mail templates, landing pages, calendar, tickets, and some basic marketing automation (basic campaigns and segments). After implementation is finished, customers are trained and given logins to their instance(s).

Services or Tools to Optimize Product Impact

We have medium-term plans to start a content subscription service that will include monthly e-mails centered around annual/periodic national library topics (National Library Week, Banned Books Week, etc.).

What channels does the application use for distribution of messages to recipients?

- **E-mail?** Yes.
- **SMS messaging?** Yes.
- **iMessage?** No.

Are there per-message charges incurred? Everything is unlimited use, except for SMS, which can be purchased in bundles. Pricing is based on number of contacts in system and number of calendar instances required.

Patron Privacy

- **Describe what elements from the patron record of the ILS are incorporated into the**

application. All, but customer will be able to control which data is synchronized.

- **Is there an opt-in mechanism to enable transfer of patron data?** No.
- **Is there an opt-out mechanism to disable transfer of patron data?** No.
- **Which is used by default?** Opt-in. Currently if there is an e-mail in the patron record, it will sync with CEP. It is up to the library whether it wants to engage with that e-mail address.
- **How does the application handle patron borrowing history?** No option for that at the moment; long-term plans are to give customers the option to include it.

What other data sources are incorporated into personalization or analytics? Website use logs are available, and patron participation in library programs from event manager right now. Long-term plans are to integrate with other data sources like gate count and eResource Central vendors/usage.

Personalization

If the application uses topic or subject personalization, how are these categories determined? Not available yet; medium-term goal, though, as we include more data from ILS into CEP.

Collection Analysis

Does the application have a collection analysis component (assesses collection holdings relative to patron interests)? With borrowing history enabled, long-term goal is to have this feature available in CEP.

What types of campaigns are supported?

- **Welcome messages for newly registered patrons?** Yes.
- **Messages for lapsed patrons?** Yes.
- **Messages promoting library programs or events?** Yes.
- **Generation of library newsletters—general?** Yes.
- **Specialized newsletters or brochures?** Yes.

Online Registration

Not handled through the CEP.

ILS Circulation Notice Replacement

Can the application replace the standard messaging functions of the circulation module of the ILS, such as sending notices for overdue items, hold notifications, almost-due notifications? Not currently, but planned.

External Data Sources

Can the application use external data sets in its

marketing analysis or analytics, such as census data or other sources of demographic data? This should be handled through BLUEcloud Analytics.

Customer Relationship Management Integration

Does the application make use of a third-party customer CRM? No. However, the application is based on Mautic and WordPress, which are “third-party” systems.

How Many Libraries Have Implemented Your Solution?
About 30.

Springshare Connect

Springshare was founded by Slaven Zovkovic in 2007. Its initial product, LibGuides, has become widely implemented by academic and other libraries to streamline the production of subject guides and other content pages produced by librarians. The company has continually extended its product suite. These products include:

- LibCal for event management, appointments with librarians, setting hours for buildings and locations, and room and equipment reservations.
- LibAnswers for providing virtual reference services. Springshare expanded this service with the acquisition of QuestionPoint from OCLC in 2019.
- LibStaffer for scheduling work schedules of library personnel, student workers, or volunteers.
- LibWizard, a tool for creating online forms and processing responses.
- LibInsight, a general statistics, reporting, and analytics tool.
- LibCMS, which extends the reach of LibGuides to manage the library’s full website and its intranet and to create online exhibits or other large content collections.
- LibCRM, a library-oriented customer relationship management system with capabilities to help libraries analyze their patron database and to manage action lists in support of outreach activities.

In September 2021 Springshare introduced a set of tools extending the capabilities of its LibCRM product to help manage marketing and outreach initiatives. According to the press announcement, this new product includes:

- an ILS importer to create LibConnect profiles and easily identify e-mail audiences to form e-mail distribution lists based on user preferences
- prebuilt and custom templates for sending beautiful and engaging e-mail campaigns

- a drag-and-drop e-mail editor to add any type of content to outgoing e-mails
- a free-to-use image library with over 500,000 high-quality stock images
- mobile, tablet, and desktop views for previewing e-mail campaigns
- in-depth campaign reporting on delivery rates, opens, clicks, and unsubscribes²

As a recently announced product, LibConnect continues to be developed and has not yet begun its implementation phase in libraries.

VENDOR RESPONSES

How Is Your Marketing Application Offered?

- **As a stand-alone product?** Yes.

Which ILS Products Does Your Product Support?

Alma, Sierra, Koha, and Symphony. We will integrate with others, too, based on customer feedback and needs. Our ILS middleware layer has the capability to integrate with any ILS that has APIs or uses industry-standard protocols for exchanging data.

Included or Optional Components

- **Event management system?** Optional add-on (LibCal).
- **Room booking application?** Optional add-on (LibCal).
- **Patron registration service?** No, but planned in future.
- **Analytics and data visualizations**
 - **Messaging/marketing performance?** Yes.
 - **Library use analytics (describe general categories of library activities covered)?** Optional add-on (LibInsight).
- **Other?** Full CRM functionality built in. Create user profiles and aggregate user activity and communication in one holistic view of user’s interactions with the library staff.

Implementation Process

Please describe the general steps involved with implementing your solution, such as configuration, ILS integration, data transfers, etc.

A system administrator establishes an initial connection between LibConnect and their ILS and indicates which patron data fields from the ILS they’d like to map to profile fields in LibConnect. We also maintain a manual profile upload for sites that don’t wish to sync with their ILS. Once the connection is established, patron data refreshes on an ongoing basis. Sites can then use these mapped fields to create

distribution lists and in turn send beautifully crafted e-mails to those distribution lists. Sites are also able to create categories of e-mail marketing messages so that patrons can opt in to receiving e-mails related to particular categories (some examples might be New Fiction Offerings, Author Series, Virtual Programming, Summer Reading, etc.).

Services or Tools to Optimize Product Impact

Our legendary support and training teams help with initial setup and are included in the annual license fee. We also offer extensive documentation on how to use the product and free training webinars on using the product.

What channels does the application use for distribution of messages to recipients?

- **E-mail?** Yes.
- **SMS messaging?** No, but planned in the future.
- **iMessage?** No, but planned in the future.

EXPLANATION for SMS and iMessage/Social Media:

These communication channels between libraries and patrons are already available in Springshare Suite—inside LibAnswers—but we haven't made it part of LibConnect at the initial release. Based on customer feedback and feature requests, we will plan accordingly as to when to tackle the SMS and iMessage message distribution.

Are there per-message charges incurred? No.

Patron Privacy

- **Describe what elements from the patron record of the ILS are incorporated into the application.** Each client site can customize which fields from its ILS it would like to incorporate into the application. Available fields vary by ILS.
- **Is there an opt-in mechanism to enable transfer of patron data?** Yes, in the sense that each client site can opt in to syncing its patron data with LibConnect.
- **Is there an opt-out mechanism to disable transfer of patron data?** Yes, in the sense that each client site can opt out of syncing its patron data with LibConnect.
- **Which is used by default?**
 - **Opt-in?** Yes.
- **How does the application handle patron borrowing history?** LibConnect does not currently store patron borrowing history.

What other data sources are incorporated into personalization or analytics?

- **E-book access (overall or by specific patrons)?** Not currently.
- **Website use logs?** Not currently.
- **EZproxy or other proxy server logs?** Not currently.
- **Patron participation in library programs from event manager?** Available for sites that already subscribe to LibCal.

Collection Analysis

Does the application have a collection analysis component (assesses collection holdings relative to patron interests)? Not currently.

Personalization

If the application uses topic or subject personalization, how are these categories determined?

- **Manually set by patron?** Yes, using self-indicated interest categories as described above.
- **Automatically inferred from previous use of library site?** No.

What types of campaigns are supported?

- **Welcome messages for newly registered patrons?** Planned in near future as a follow-up release feature update.
- **Messages for lapsed patrons?** Planned in near future as a follow-up release feature update.
- **Messages promoting library programs or events?** Yes.
- **Generation of library newsletters—general?** Yes.
- **Specialized newsletters or brochures?** Yes.

Online Registration

How does the online registration validate residency or other requirements? LibConnect does not validate residency or other requirements. List of users who receive e-mail communication is either imported from ILS or librarians/admins upload via Excel/CSV import.

ILS Circulation Notice Replacement

Can the application replace the standard messaging functions of the circulation module of the ILS, such as sending notices for overdue items, hold notifications, almost-due notifications? Planned in the near future as a follow-up release feature update.

External Data Sources

Can the application use external data sets in its marketing analysis or analytics, such as census data or other sources of demographic data? Not at

this time, but discussed as possible enhancement in the future.

Customer Relationship Management Integration

Does the application make use of a third-party customer CRM? No—LibConnect has CRM functionality (LibCRM) built in.

How Many Libraries Have Implemented Your Solution?
None yet; this is a new product.

OrangeBoy Savannah

OrangeBoy was founded in 1996 by Clark Swanson as a firm offering strategic consulting services to non-profits and other organizations. The company evolved to focus on planning and customer segmentation tools for government agencies, including public libraries.

In 2014 OrangeBoy launched Savannah as its platform for advanced analytics and visualizations specifically designed for libraries. Savannah has evolved to encompass a wide range of capabilities for targeted marketing and other services to build patron engagement. The platform is based on the Power BI Embedded and is deployed via Azure and other Microsoft technology components.

OrangeBoy Savannah can be implemented by libraries using any major integrated library system. It does not replace the library's existing ILS, catalog, or discovery products.

VENDOR RESPONSES

How Is Your Marketing Application Offered?

As a stand-alone product—Savannah is a stand-alone product that integrates with all of the library's data sources (i.e., ILS, e-resources, etc.).

Which ILS Products Does Your Product Support?

Savannah can integrate with all ILS products.

Included or Optional Components

- **Event management system?**
- **Room booking application?**
- **Patron registration service?**
- **Analytics and data visualizations?**
- **Messaging/marketing performance?**
- **Library use analytics (describe general categories of library activities covered)?**
- **Other?**

Savannah includes:

- Data Warehouse
- Proprietary Customer Segmentation Tool

- Performance Dashboard
- Customer Communication Engine with Feedback Tools
- Powerful Data Mining and Analytics Features
- GIS Mapping
- Incident Reporting
- Philanthropy Center
- Program Attendance Tracker
- Forms 360

Implementation Process

Please describe the general steps involved with implementing your solution, such as configuration, ILS integration, data transfers, etc.

Libraries can select multiple ways to upload their data based on what works best for their environment.

Services or Tools to Optimize Product Impact

What services are available to assist libraries in making optimal use of the product? Are these services included in the annual maintenance or license fee?

Libraries work with a dedicated, knowledgeable Orange-Boy Client Services Member who can ensure successful use and application of Savannah. All OrangeBoy staff can be reached via phone or e-mail and respond within 24 hours, but normally closer to within two hours.

In addition, we provide libraries with access to numerous webinars (live and recorded) to learn new ways to engage customers, expand reach, and help their communities thrive. We also host an annual Idea Exchange where libraries can network with peers, share ideas, and implement best practices to engage their customers.

What channels does the application use for distribution of messages to recipients?

- e-mail
- SMS messaging
- iMessage

Are there per-message charges incurred? E-mail is unlimited, but there is a per-message charge for SMS messaging.

Patron Privacy

One topic covered concerns patron privacy. Marketing applications often rely on data from patron profiles for messaging and analytics. Describe what elements from the patron record of the ILS are incorporated into the application.

Each library can choose which data fields it wants incorporated into Savannah. We claim no ownership rights to our clients' data, and clients can remove or delete uploaded data at any time. Similarly, if a library

wants to include (or exclude) particular patrons' data in (from) our database, we can put in place mechanisms to enact those rules.

Is there an opt-in mechanism to enable transfer of patron data? See above.

Is there an opt-out mechanism to disable transfer of patron data? See above.

Which is used by default? Specified by the library.

How does the application handle patron borrowing history? Libraries can choose to upload and store information regarding the type of material borrowed by patrons (e.g., audiobook, adult print item), but we do not gather or store the names or identifying details of particular items borrowed by patrons.

What other data sources are incorporated into personalization or analytics? Savannah is an extremely flexible system and can incorporate any data the library collects, whether it is related to a patron or organizational.

Collection Analysis

Does the application have a collection analysis component (assesses collection holdings relative to patron interests)? No.

Personalization

If the application uses topic or subject personalization, how are these categories determined?

- **Manually set by patron?**
- **Automatically inferred from previous use of library site?**
- **Other?**

All of the above. Libraries can create their own segments, and patrons can opt in to certain segments. We also have clusters. Clusters are behavior-based customer segments that allow a library to group its customers based on their library activities. Each cluster is built using real-time library interactions, like circulation of children's materials or e-book downloads, with additional insights added from a cardholder assessment, market analysis, and surveys. Clusters allow libraries to target specific groups of customers effectively in order to best appeal to each individual group based on their interests.

OrangeBoy has spent nearly a decade perfecting its cluster algorithms and learning from our clients and their customers. Our proprietary customer segmentation system allows libraries to analyze their current customer distribution while tracking how their customer relationships change over time.

What types of campaigns are supported?

- **Welcome messages for newly registered patrons?** Yes.
- **Messages for lapsed patrons?** Yes.
- **Messages promoting library programs or events?** Yes.
- **Generation of library newsletters—general?** Yes.
- **Specialized newsletters or brochures?** Yes.

Online Registration

Yes.

How does the online registration validate residency or other requirements? The system standardizes the address and then verifies that the address is within the library's service area.

ILS Circulation Notice Replacement

Can the application replace the standard messaging functions of the circulation module of the ILS, such as sending notices for overdue items, hold notifications, almost-due notifications? No.

External Data Sources

Can the application use external data sets in its marketing analysis or analytics, such as census data or other sources of demographic data? Yes.

Customer Relationship Management Integration

Does the application make use of a third-party customer CRM? No.

How Many Libraries Have Implemented Your Solution?

We have great reach across North America with public libraries of all sizes.

A sample of implementation sites includes:

- Anchorage Public Library
- Lawrence Public Library
- Rock Island Public Library

OCLC Wise

OCLC Wise follows a distinct strategy that distinguishes it from the other products in this domain. Rather than offering separate components for marketing automation, events, and related capabilities, OCLC Wise comes as a comprehensive system that also subsumes the functionality of an integrated library system. This approach fully integrates patron engagement capabilities into the system and avoids the need to extract or synchronize data.

Since OCLC Wise comes as a comprehensive system, its implementation means migrating away from the ILS currently in place. The patron engagement

capabilities for OCLC Wise are not separable and cannot be implemented with a library's existing integrated library system or discovery interfaces. OCLC characterizes OCLC Wise as "the first community engagement system for public libraries."

OCLC is a nonprofit membership organization based in Dublin, Ohio, established in 1967. The organization offers a wide variety of products and services spanning metadata services, resource sharing, library management systems, and discovery services. OCLC has acquired several technology companies. In 2013 it purchased the Dutch company Huijsmans en Kuijpers Automatisering, which created the bicatWise library management system that has been further developed into the current OCLC Wise offering. This product has been implemented by most of the public libraries in the Netherlands and by a major consortium in the Flanders region of Belgium, as well as a more recent group of about ten implementations in the United States.

The April 2018 issue of *Smart Libraries Newsletter* featured OCLC Wise following its launch as an offering for public libraries in the United States:

A Patron-Centered Design

This new offering addresses a much broader scope of services for public libraries than the traditional ILS. OCLC positions this product as a community engagement platform, layering a broad set of marketing, personalization, and analytics components on top of a core set of resource management and discovery features. Although it includes core services for print collections such as cataloging, circulation, and acquisitions, its design centers on customer relationship management and marketing services.

The conceptual design of OCLC Wise centers on the user profile rather than the bibliographic record. This approach enables the product to operate much like a customer relationship management system to accumulate data able to drive personalized services. OCLC Wise will provide built-in analytics and data-driven outreach capabilities, such as the ability to deliver personalized messaging and to support marketing campaigns.

Comprehensive Library Portal

The library portal component of the product provides the functionality to stand in as the library's complete web presence. The library controls the presentation, content, and services presented through the portal. One of the components enables the library to highlight featured materials in a carousel of cover images.

The patron interface of the platform provides features and services to replace the library's entire website, with an integrated discovery component. This approach resembles the combination of

BiblioCommons' BiblioWeb and BiblioCore, though with Wise these components are deployed as part of a holistic platform rather than as integrations of third-party products.

Data-Driven Personalized Services

A fundamental quality of OCLC Wise builds on the increasing expectation for personalized services. The ability for the product to deliver on this expectation depends on enabling enriched data to be recorded on each patron profile. This data includes demographic information as well as any data generated through any interactions with the system such as items checked out or events attended. The accumulation of personally identifiable data is governed through a detailed set of privacy options that can be selected by the library according to their policies. By default, the platform will capture usage data with the ability for patrons to opt out.

Marketing and Engagement

The product includes a Marketing Workbench module that a library can use to design and execute personalized messages or marketing campaigns. Features include the ability to select groups of patrons based on demographic data or use patterns, to create and send messages, and to view reports related to patron use and marketing activities. Individualized messages can be triggered by events such as birthdays or borrowing card expiration. More complex marketing campaigns can be based on a variety of other drivers.

Leverages User-Supplied Content

OCLC Wise provides a variety of dynamic user interactions for the items displayed through its discovery component. Each item display includes user-generated content, such as tags, ratings, reviews, lists, and services to share items on social media. Item displays for physical materials can include a mapping visualization indicating its shelf location. OCLC is developing interoperability with e-book lending platforms to fully integrate the discovery and viewing of digital materials.

Data-Driven Collection Management

The data-driven design of the product carries over to its collection management features. OCLC Wise has built-in tools to help the library develop and manage its collection in response to use patterns. The product relies on its internal, real-time data rather than having to rely on exports to a third-party service. This data enables libraries to selectively implement floating collections, to transfer items, or balance items among branches. Acquisition recommendations can be generated for any given branch or shelving location based on subject

coverage. These automated processes are based on policies and thresholds set by the library, which can be updated as needed. These processes result in a customer-driven collection development strategy.³

OCLC provided this overview of the product:

Wise Overview

Uniquely holistic in its design, OCLC Wise combines the power of customer relationship management, a communication suite (including marketing), a smart collection analysis and recommendation engine, analytics, and user-generated content all within the features of a 21st century library management solution. This transformative community engagement system, which created the category, empowers libraries to strengthen current customer relationships, build new connections with the wider community, and better meet changing community needs.

Every aspect of the Wise system is designed around people—both library users and library staff—not the collection, which enables libraries to evolve as their communities evolve. Transactions flow through and into customer records. For example, real-time and historic customer interactions with the library are used to create custom communications, supporting more meaningful and personalized engagement.

Getting the right message to the right person is as easy as dragging and dropping data components. Libraries can create automated or ad hoc campaigns that are activated by various system triggers (e.g., new registration, lapsed registration, new title acquisitions, and interest-based programming) or by matching target audiences to a variety of data points, such as age, borrowing history, location, ticket purchases, whether they have written reviews on the site, and many more. Analytics measure campaign success, so libraries can refine their approach over time. It's important to note that Wise is designed to manage data securely with library customer privacy in mind. Outside of information accessible within the customer record, data is used only in aggregate, not on an individual level. And customers can opt in or out of communications based on their preferences.

For Wise libraries, community engagement means more than just e-mail newsletters. Fueled by customer behavioral data, Wise delivers meaningful insights about how to best evolve library collections to reflect the needs, consumption patterns, and preferences of the community. The smart collection analysis and recommendation engine helps meet customer needs by supporting data-driven decisions across functional areas. This

collection management approach combines internal expertise with evidence-based advice about what to keep, buy, move, and replace in real time.

For years, many libraries have had to rely on multiple products to collect and analyze critical data. With integrated tools and shared data, Wise simplifies and automates this process. And the system doesn't just collect usage data, it uses the data to help libraries evolve collections based on how they are used—or not used—by customers. In fact, Wise can replace many solutions libraries currently use individually because they are already integrated components of this single, holistic system.

The deepest forms of engagement can occur when users proactively interact with the library and with other users. This is why Wise also allows library customers to generate content like reading lists and book reviews that can be shared with other library users. This collaborative sharing encourages users' active engagement with library services, creates a sense of belonging, and deepens the connections with the library.

VENDOR RESPONSES

How Is Your Marketing Application Offered?

Delivered as functionality fully integrated within an integrated library system?

Yes. Marketing capabilities are delivered as a fully integrated component within Wise that draws on system data in real time.

Wise simplifies the creation, segmentation, and distribution of more personalized and targeted communications with a drag-and-drop solution—helping improve customer relationships and build new and stronger connections with the community. Wise is designed to manage data securely (with library customer privacy in mind) and to provide opportunities for library staff to use data for the purposes of more meaningful and effective communication, collection management, and reporting. Security and privacy are a constant focus of our ongoing development work.

Libraries can create automated campaigns that send messages to customers using a variety of system triggers, such as a new registration, an upcoming renewal date, or a birthday. It's easy to create targeted lists of customers using more than a hundred criteria, including their transaction history, event attendance, areas of interest, and demographic information like age and branch location. Given that Wise uses actual customer transaction data in real time, libraries can connect customers to their interests in the most timely and accurate way possible.

Libraries can build customer lists based on a wide variety of criteria, such as age, borrowing history, ticket event registrations, or whether a customer

has submitted user reviews. Criteria can be stacked using and/or operations for very granular selections. Customer lists can be created for specific branches or shared system-wide, and they can be saved for repeated use. A handy audience preview feature shows how many customers will receive an e-mail based on the selected criteria, allowing for further expansion or refinement.

It should be noted that Wise displays customer lists only in aggregate. It does not display individual customer names inside the tool, and it sends only to customers who are opted in to receive promotional communications. If marketing staff build an e-mail list, the system verifies specific information behind the scenes and instantly pulls a list together—they do not see and cannot access personally identifiable customer information.

Messages are created via a user-friendly interface similar to a web-based CMS, including text styling, hyperlinks, and images. A/B splitting functionality allows libraries to send two different e-mails to evaluate their effectiveness. E-mails use configurable templates to render and display, with a preview function that shows the message from the customer's perspective prior to finalizing.

Which ILS Products Does Your Product Support?

Wise is a single, holistic solution that includes community engagement and library management features and serves as a library's ILS as well as its marketing and collection analysis platform.

Included or Optional Components

- **Event management system?** Wise provides built-in ticketing functionality for free or paid admission to events. Events can be categorized according to activity type (e.g., workshop, concert, or book club) and subject/genre (e.g., family or science fiction). Standard reports accommodate guest lists, sale reports, and more.

Data from ticketing can be used for communications efforts, and Wise also allows library staff to send flash e-mail messages to all registrants for particular events. This feature is especially useful for sharing links and log-in information for virtual events. Additionally, Wise interoperates with a variety of third-party event management solutions, providing libraries with flexibility and choice in the systems they wish to use.

- **Room booking application?** To allow libraries to create their own multi-technology stack, Wise integrates with a number of third-party services. This integration allows customers to view their reservations inside the Wise system. We look forward to expanding on this integration in the future.

- **Patron registration service?** The Wise customer database is used for all marketing communications. Each library system using Wise can determine how self-registration is handled. A common configuration allows users to self-register online, which permits them to use electronic materials, place holds, and add items to wish lists. However, a block can be applied to the account requiring address verification in person before any physical material may be checked out. During the pandemic, some libraries have taken a different approach to streamlining access for new customers by providing full access to library resources without in-person verification. Wise supports a wide variety of registration workflows to align with the library's preferences and policies.

- **Analytics and data visualizations?**
 - **Messaging/marketing performance?**
 - **Library use analytics (describe general categories of library activities covered)?**

Marketing and communication activities are included in the hundreds of Wise standard reports and other analytics that measure library use. A/B splitting functionality allows libraries to send two different e-mails to evaluate their effectiveness. Wise includes specific reports for both campaigns and direct e-mails that detail number of e-mails sent and received, e-mails opened, links clicked, and bounce rate to determine effectiveness.

Wise includes robust reporting and analytics capabilities as part of the system, including predefined reports and a selections tool that allows libraries to create their own queries. Outputs from Wise can be used with services like Tableau, providing even more flexibility.

From a collection development and management standpoint, Wise includes evidence-based collection management, which analyzes the collection in real time to make recommendations on what items to weed or replace. This service also makes purchase recommendations, and for library systems that choose to do so, it will proactively balance collections to relocate items from one branch to another where they are more likely to circulate. This service is included as part of Wise, resulting in increased circulation over time, a reduction in "dead on arrival" items, and a collection that better reflects the needs of the community.

Other components include:

- Customer interactions can be tracked and managed with Wise. Library staff can create records for all interactions, and branch managers and administrators may view all recorded interactions together, allowing for

requests and comments to be easily categorized and assigned to staff or departments for further review and response.

- Wise allows customers to create community profiles and curate title lists that can be kept private or shared with customers of any Wise libraries in the US. Library staff can use this feature to share lists as well. Wise also allows library customers to share title ratings and detailed reviews.

Libraries can also choose to activate the Wise personal recommendations feature, which provides customers with title recommendations based on their checkout history.

- Library staff can send messages to customers via their Wise user account inbox and view the read status of that message. Deleted and read messages can also be resent, and customers will be alerted via e-mail about any inbox messages that are not read within 24 hours.
- From a system architecture perspective, Wise includes an automatic bounce-back processor. If e-mail messages cannot be delivered, Wise will attempt to notify the customers through other channels and prompt customers to update their e-mail addresses, referring any it cannot resolve to staff for manual review and cleanup. This maintains a higher standard of accuracy for contact information and improves the efficacy of outbound communications.
- Wise's "Library at Home" functionality offers unique capabilities to engage with homebound library customers. Material recommendations are based on currently available titles from a customer's wish list, as well as items of interest based on checkout history.

Implementation Process

Please describe the general steps involved with implementing your solution, such as configuration, ILS integration, data transfers, etc.

[Note: Implementation of Wise involves migrating from the library's current ILS.]

We conduct in-depth surveys and analyses of a library's operational workflows, policies, practices, and data very early in the implementation process to configure a library's initial instance of Wise. During cycles of data migration, library testing, and reconfigurations of that initial instance, library administrative staff receive full access and skills training by OCLC to continue modifying the system, on its own.

The OCLC implementation team works with the library through the implementation journey; their success is our success. We will:

- Discover and align with their strategic goals.
- Develop personalized support.
- Deliver a system that supports their mission.
- Use their insights along with others in the Wise community to inform future development.

Data migration is included for the basic data types migrated from your current ILS to Wise (bibliographic, item, customer, and circulation). Specific tables are configured in Wise to receive data that is mapped and moved using scripts specifically designed and maintained for these purposes. Bibliographic and item data is specifically mapped and moved using the MARC21 standard.

Data migration occurs in four basic stages:

1. Analysis. Initial test load and analyses of sample data types (bib/item, customer, circ) generates a report that becomes the singular agenda item for a "data day" with the library.
2. Testing. Full migration of data into an instance of Wise for review and testing by OCLC and library.
3. Training and testing. Second full data migration to prepare for training and library end-to-end testing.
4. Implementation. Final full data migration, just prior to go-live.

An Implementation Manager guides libraries through the data migration process, working in collaboration with OCLC data specialists. Detailed data migration planning and requirements guides are provided.

Services or Tools to Optimize Product Impact

What services are available to assist libraries in making optimal use of the product? Are these services included in the annual maintenance or license fee?

We deliver a multifaceted approach to training for Wise, relying primarily on live, instructor-led training to relay key concepts and build system confidence, preparing the full library staff to go live with the Wise system.

Training for Wise is offered primarily as live, online, instructor-led classes (1–2 hours each), with all live courses also shared as recordings to provide flexibility for viewing and provide opportunities for content review as needed. Training is concentrated on scenarios that library staff will execute in their day-to-day use of the Wise system, including (but not limited to) coverage of customer administration, circulation, acquisitions, cataloging, marketing, ticketing, and reporting.

Live, instructor-led training classes provide ample opportunities for library staff across the organization to ask questions and interact directly with OCLC's

Wise trainers, engaging with the content via discussion, brief polls, and quizzes. Class size for live courses is capped to support the use of live training time for questions from library staff and clarification of key concepts.

In addition to live and recorded instructor-led training classes, training is also delivered as short video tutorials (5–15 minutes) on specific topics and workflows and self-paced exercises and handouts.

We are committed to supporting our libraries once they've implemented Wise and provide an incomparable experience including:

- A dedicated Customer Success Manager—The single point of contact for ongoing success management who works closely with the library to make sure it is getting the most out of Wise and that it's helping deliver on the library's objectives.
- Ongoing marketing consultation—A marketing expert seeks to understand your marketing goals and helps map out a marketing approach to best utilize Wise to maximize your marketing and communication efforts; consults on launch communication rollout plan to your community.
- A dedicated OCLC executive sponsor—Checks in with the library throughout the process to ensure everything is going smoothly.
- Product collaboration—Collaboration with OCLC staff and Wise libraries to shape future development of Wise functions and features.
- Wise directors meetings—Ongoing convening of all Wise US directors to inspire, learn from one another, and share any new needs to inform future product development.
- Wise Community Center—An online forum to connect and interact with other Wise libraries and to attend product insight sessions (product road maps shared) and office hours (to provide the training and documentation to ensure libraries are comfortable with configuration post-launch).

What channels does the application use for distribution of messages to recipients?

E-mail is the primary push-based channel for Wise communications. Library staff are able to combine more than 100 criteria to build very granular segmentation lists for targeted marketing messages and automated campaigns, as well as general newsletter creation and distribution. Wise also sends a variety of messages (overdue notices, hold notices, etc.) by e-mail or text message, while others are printed on forms or letterhead and sent via a postal service. Wise seamlessly integrates with CM.com for libraries interested in sending SMS messages.

Inbox messages are available to send to customers as well. The Inbox is an option available within the MyAccount menu for customers to access. If a message

is not accessed within 24 hours, Wise will send an automatic notification to the customer's personal e-mail. Library staff will be able to see when the message was opened from within the customer record in the staff interface.

Flash messages are available to send a message to all patrons registered for an event. This is useful for sending out changes to the event or Zoom/streaming links prior to an event.

Are there per-message charges incurred?

Wise does not charge a per-message fee. The library may incur charges from the third-party service it chooses to process and deliver SMS messages.

Patron Privacy

One topic covered concerns patron privacy. Marketing applications often rely on data from patron profiles for messaging and analytics.

As an organization, we take data privacy and security very seriously. Wise is flexible and configurable to support library practices and policies. Additionally, Wise provides library customers with multiple options to manage their own privacy preferences, including the ability to enable a "transaction block" that anonymizes transactions after a 60-day period. This time period allows the library a window to rectify any circulation issues that arise, such as damaged items.

Wise displays customer lists only in aggregate. It does not display individual customer names inside Wise, and it sends only to customers who are opted in to receive promotional communications.

Describe what elements from the patron record of the ILS are incorporated into the application.

For customers who have opted in, the customer record is available for selection and use in engagement interactions. Potential selections include age, home branch, birth month, customer type, number of loans per year, and borrowing history.

Is there an opt-in mechanism to enable transfer of patron data?

Since the full breadth of community engagement features are completely integrated in Wise, no customer data needs to be transferred into or out of the service. Customers may opt in or opt out of marketing activities conducted by the library.

Is there an opt-out mechanism to disable transfer of patron data?

Since the full breadth of community engagement features are completely integrated in Wise, no customer data needs to be transferred into or out of the service. Customers may opt in or opt out of marketing activities conducted by the library.

Which is used by default?

Currently, new customers are automatically opted in to receive marketing communications; however, they can be opted out at any time.

How does the application handle patron borrowing history?

Wise empowers creation of targeted customer lists using more than 100 criteria, including transaction history, event attendance, and demographic information like age and branch location. Given that Wise uses customer transaction data in real time, it can be a more accurate predictor of interest than third-party analysis tools. Borrowing history criteria can be used to select customers who have borrowed specific titles or authors or who have borrowed material from particular genres or subjects. Aggregate and anonymized transaction history is stored so the system can evaluate and identify usage trends to produce reports that make recommendations to library staff and to support marketing. The system provides access controls to ensure only appropriate library staff have access to the customer record and personally identifiable information.

What other data sources are incorporated into personalization or analytics?

Wise can track data for opted-in customers based on activity, including all circulation data, materials, program attendance, use of computers during library visits, etc. Wise also provides “Areas of Interest” that are customizable by the library that allow customers to note their individual preferences for some communications. Data from EZproxy and website logs are not used for community engagement purposes.

Collection Analysis

Does the application have a collection analysis component (assesses collection holdings relative to patron interests)?

Wise includes a fully integrated collection analysis component. Fueled by customer behavioral data, Wise delivers meaningful insights about how to best evolve library collections to reflect the needs and preferences of the community. This collection management approach combines internal expertise with evidence-based advice about what to keep, buy, move, and replace in real time. It is completely configurable by the library, so collection development staff can adapt their own usage over time to reflect the needs of individual branches. Libraries no longer need to schedule costly weeding or evaluation events. With Wise, collection development activities become a streamlined and organic part of ongoing workflows, tailoring the collection to the community’s needs over time.

Wise can make collection development decisions based on general policies set by the library and

real-time analytics of a collection’s usage. This will automatically determine:

- Which subject areas need new titles
- Which titles need more copies
- Which copies need to change location in a branch, a library, a consortium
- Which copies need to be weeded

This results in:

- More effective use of a library’s staff time
- More effective use of a library’s space
- Less grubby, more attractive appearance of materials
- Better overall performance of a library’s collection because it is balanced based on actual use
- Ability to make evidence-based decisions about how to grow or not grow the collection
- More information that can be used to improve programming and meet community needs

Wise continuously analyzes the usage of the library’s collection in accordance with each location’s profile. Lists are generated weekly that:

- Designate items to be sent to another location or removed from the collection
- Provide suggestions for titles that need additional copies or subject areas that need additional titles
- Report on performance of materials so that policy settings can be adjusted if necessary

Once the criteria are set up, material that should be considered for floating to another branch or inspected for repair, replacement, or weeding will be identified in a weekly items action list, which is generated from within the staff interface. This list can be organized in walking order to save staff time and hassle when gathering the items.

Wise goes beyond optimizing the collection; it evolves with the community because it’s based on how people use the collection and how they engage with the library. It can be transformative. Along with staff expertise, the system provides weekly guidance with simple steps. And the system gets smarter over time as more data is collected, so trends turn into effective change that helps meet specific community needs.

Personalization

If the application uses topic or subject personalization, how are these categories determined?

Customers can subscribe to interest profiles based on categories defined by the library. Subscribing to a profile alerts a customer when new materials are added to the collection that align with the customer’s

individual preferences. Library staff can also notify customers about events and programs related to these topics through the integrated community engagement features. These profiles are customizable and can change over time, allowing libraries to best reflect the evolving interests of specific customers and the broader community.

What types of campaigns are supported?

In addition to sending one-off e-mails, Wise allows libraries to create automated campaigns that send a series of e-mail messages at intervals defined by the library. These campaigns can be activated by various system triggers (e.g., new registration or lapsed registration) or can be applied to lists of customers selected using combinations of more than a hundred qualifying criteria like age, birth date, borrowing history, location, ticket purchases, or whether they have written reviews on the site. Robust analytics support measuring campaign success and learnings for future refinement.

Wise includes integrated newsletter creation and management functionality—with options for segmentation, including general audiences or arranged around specific interest areas or customer groups. Additionally, individual newsletter articles may be leveraged in multiple newsletters and saved for later use.

Customers sign up to receive various newsletters via their online accounts, and community members who are not registered library users can also sign up for newsletters in other ways.

Online Registration

How does the online registration validate residency or other requirements?

Customers can create a library account online. The library has two choices to validate residency. The library can either add an address block stating that the customer should verify their address by coming to the library or assign a temporary card. The latter allows customers to start using e-resources immediately before verifying their address at the library.

ILS Circulation Notice Replacement

Can the application replace the standard messaging functions of the circulation module of the ILS, such as sending notices for overdue items, hold notifications, almost-due notifications?

As a holistic system, Wise can automate messages to inform customers on overdue items, hold notifications, and almost-due notifications, leveraging the circulation data within the system.

External Data Sources

Can the application use external data sets in its marketing analysis or analytics, such as census data or other sources of demographic data?

Wise does not currently incorporate external data sets or web usage statistics into its data, with the exception of customer interactions with marketing. The use of services that include third-party data have sparked intense discussion within libraries and their communities. OCLC continues to engage with library leaders and the broader community to understand if and how third-party data can properly be used to inform engagement strategies.

Customer Relationship Management Integration

Does the application make use of a third-party customer CRM?

Wise includes an extensive customer database and features customer relationship management functionality. Wise integrates and manages many different roles a customer may have, such as a library user, a recipient of a targeted newsletter, and/or a participant in a book club. The system assigns and maintains this data centrally and securely.

Within customer records, Wise provides the ability to store a variety of documents related to the customer. These could include makerspace use agreements, forms related to summer reading programs, applications to exhibit artwork, and much more. Also within the customer record, library staff can record interactions with customers over time. Among other uses, this feature can be employed as an incident tracking solution.

How Many Libraries Have Implemented Your Solution?

Since launching Wise in the US, we have been joined by nine libraries (more than 80 branches) that recognize the value of putting community first. Six have implemented Wise to date, and three more are in the implementation process set to launch later in 2021 or early in 2022.

Additionally, several hundred libraries use Wise in Europe, either as single institutions or as regional consortia. In the Netherlands, for example, Wise is the market-leading solution being used by more than 75% of public libraries, 109 libraries, in the country. In Belgium, 210 libraries in Flanders are live with Wise, and all 315 public libraries there will be implemented in the coming months.

Innovative Vega Library Experience Platform

Innovative Interfaces, a major company offering technology products and services, has developed a new suite of patron interfaces and services for public libraries using its Polaris or Sierra integrated library system. Innovative Interfaces, Inc., was founded in 1978 by Jerry Kline and Steve Silberstein. Its ILS products have evolved through multiple generations of technology, progressing from INNOPAC, to Millennium, and finally to Sierra, introduced in 2011.

In 2014 Innovative acquired Polaris, an integrated library system developed primarily for public libraries and implemented in the United States and Canada. Innovative was acquired by ProQuest in 2020 and shortly began a new development initiative that resulted in the creation of the Vega Library eXperience platform, a set of modern interfaces and services that can be implemented by libraries using Sierra or Polaris. The initial module of the platform, Vega Discovery, provided a modern discovery interface. The company continues to develop additional modules of the Vega LX platform.

The Vega LX suite works with Innovative's Sierra or Polaris integrated library system and cannot currently be used by libraries using other ILS products. Vega Discovery replaces or supplements the library's current catalog or discovery interface, such as Encore, WebPac PRO, or Polaris PowerPAC.

Vega was featured in the March 2021 issue of *Smart Libraries Newsletter*:

Vega was developed as a modern suite of cloud-based services implemented through software-as-a-service. It follows patterns of software development for current-day projects, not tied to legacy architectures. It is deployed through Amazon Web Services and a technology stack based on industry-standard components able to scale to meet the performance demands of a global customer base and to support rapid product development.

Aaron Terrell, Innovative's vice president of engineering, describes the general technical design of Vega:

Vega's architecture implements a tiered microservice architecture with separation between user interfaces (UI) and business logic. Web applications are designed to be responsive, with user testing and accessibility sourced requirements incorporated into designs. Data access is controlled by APIs across Vega's multiple services. Each service has a dedicated database. An API gateway unifies the programmatic interface to Vega, with authentication and authorization controls implemented at the gateway and within services. Vega has tight integrations with the supported underlying ILS systems (Polaris and Sierra), emphasizing strong interoperability without tight coupling where possible. This allows the ILS to maintain authority on system objects while Vega focuses on new and rich experiences.⁴

Innovative plans an additional set of applications for the Vega platform. Forthcoming modules include:

- **Interact:** Enables the library to communicate directly to patrons through notifications and alerts. This messaging would be triggered by temporal circumstances, such as initial registration

or renewal, or generated according to areas of interest.

- **Promote:** Supports a library's marketing campaigns through the generation of messaging to selected groups of patrons. A library would take advantage of these automated marketing capabilities to promote events, highlight collections, engage in fundraising or other activities.
- **Program:** Features an event management and room booking module with integrated patron communications and streamlined workflows for scheduling, program descriptions, and promotion.
- **Analyze:** Provides the statistics, reports, and analytics libraries need to assess the effectiveness of their programs, collections, and other services.

VENDOR RESPONSES

How Is Your Marketing Application Offered?

The Vega Library Experience (LX) platform is a suite of modules that provide an end-to-end experience for libraries through seamless integration with the Sierra and Polaris ILSs.

Which ILS Products Does Your Product Support?

Vega LX currently supports Polaris and Sierra.

Included or Optional Components

- **Event management system?** Yes.
- **Room booking application?** Yes.
- **Patron registration service?** Yes.
- **Analytics and data visualizations?** Yes.
 - **Messaging/marketing performance?** Yes.
 - **Library use analytics (describe general categories of library activities covered)?** Yes.

Vega LX takes an expansive view of patron engagement, focusing on all interactions with patrons, including both those initiated by the user and those initiated by the library. Vega LX is composed of the following five modules:

- **Vega Discover**—A modern search experience for public library patrons with a simple user interface that displays accurate and relevant search results, with the option to digitally browse related resources, authors, topics, and featured showcases. Patrons can also manage and use e-books and audiobooks through the interface.
- **Vega Interact**—A communications tool for one-on-one patron conversations that includes bidirectional information sharing so staff can respond to questions and listen to individual patrons through their preferred communication channel whether it be text, chat, social media, or PDA integration (e.g., Alexa skill).

- *Vega Promote*—A fresh approach to digital marketing with our “one-to-many” approach where library staff can send targeted and relevant communications to all patrons or audience segments across multiple communication channels. Additional features include website building and donor management.
- *Vega Program*—A programming and event solution that helps you not only manage your offerings more effectively, but tightly integrate them with other more traditional library resources. Additional features include a room-booking application.
- *Vega Analyze*—An analytics platform that provides business intelligence and predictive capabilities through data visualizations across Vega modules to support the modern library.

Each module can be purchased individually or grouped with other modules. Vega Connect is sold with each module to support the connection between the ILS and Vega:

- *Vega Connect*—The platform that powers Vega with the BIBFRAME-based Context Engine, Vega Universal Messaging Service, Email Design tool, circulation notices, and patron journeys for registration and renewal.

Implementation Process

Please describe the general steps involved with implementing your solution, such as configuration, ILS integration, data transfers, etc.

Innovative provides comprehensive professional services covering all aspects of implementation. Innovative’s Professional Services team uses proven methods, tools, and approaches to ensure the implementation is successful, including library staff training.

For Vega LX, the implementation process includes three phases: project planning, installation, and configuration.

Services or Tools to Optimize Product Impact

As part of our implementation process, we plan to offer:

- onboarding, creative, and training services with experts in channel messaging and design best practices,
- monthly consultative services with experts to review engagement results and make adjustments, and
- self-directed get started guides.

Promote and Interact are designed to offer a templated approach to digital marketing and communications that guides library staff through the setup and use of common campaigns and interactions.

These templates serve as intuitive starting points for libraries.

We also offer advanced marketing and website design services for libraries that want to go beyond the templates and need additional support to do so. Innovative is partnering with a leading creative agency for digital services that specializes in public campaigns to offer this personalized support to libraries.

What channels does the application use for distribution of messages to recipients?

Vega LX takes an expansive view of patron engagement, focusing on all interactions with patrons, including both those initiated by the user and those initiated by the library. We believe engaging users takes more than just e-mail messages. We’re exploring all popular communications channels and can integrate with any service that has an API available. We select communications channels based on feedback from development partners and usage data.

For Vega LX, we have planned:

- E-mail
- SMS messaging
- Mobile push notifications
- Push notification to discovery
- Voice
- Social media channels
- Personal digital assistants (e.g., Amazon Echo)
- Any channel or service that has an API

Are there per-message charges incurred?

We believe that libraries need packages that are predictable and stable to better support their planning and budget processes. Our packages are designed around the purchase of a Vega module. We offer base and premium packages to allow different libraries to find something that fits their needs. While less popular features and communication channels may cost extra, none of our pricing relates to per-message use.

Patron Privacy

As the supplier of both the integrated library system (ILS) and the library marketing and patron engagement technologies, we use the ILS as the database of record. The patron data resides within one secure ecosystem across our integrated systems.

Our approach to patron privacy:

As personalized services become increasingly popular and necessary to create a superior patron experience, we remain committed to protecting patron privacy and offering both patrons and libraries choices to opt in to such services. Innovative is taking every precaution to ensure that user data is not shared beyond the original transaction. Innovative adheres to the library community’s practical guidelines for dealing with privacy

issues in libraries, particularly those issues relating to digital privacy, including the ALA Privacy Guidelines and the National Information Standards Organization (NISO). Similar to the personalized features in Polaris, Vega has options for both the library and the patron to choose what data-sharing features they opt in to.

There are many state-of-the-art security mechanisms in place at Innovative, including Transport Layer Security (TLS) encryption of customer information, search queries, and other confidential data. We have always relied on pre-encoded digital rights management (DRM) to secure our data; Vega uses Secure HTTP (HTTP over TLS or HTTPS) to encrypt the transport of content. This helps protect member privacy, particularly when the network is insecure—ensuring that the library members are safe from eavesdropping by anyone who might want to record their research or preferences.

There's no patron privacy if your data isn't secure:

While many conversations focus on patron privacy, they often overlook data security. Patron privacy can be ensured only if the data is also secure. To demonstrate our commitment to patron privacy and security, Innovative has achieved the following certifications: ISO 27001, ISO 27017, and ISO 27018.

- ISO 27001 is the best-known certification for information security management system (ISMS) standards and is internationally recognized as a top tier certification. The scope of Innovative's certification covers the ISMS supporting the hosted and cloud infrastructure managed by Innovative's Cloud Operations team.
- ISO 27017 sets additional standards on information security management for cloud service providers and users to reduce the risk of security problems.
- ISO 27018 is an addendum to ISO 27001. It gives specific guidance to cloud service providers (CSPs) acting as processors of personally identifiable information (PII) on assessing risks and implementing state-of-the-art controls for protecting PII.

What other data sources are incorporated into personalization or analytics?

Our goal is to integrate as many data sources as possible through the use of APIs. When APIs are not available, we may bring in other data for personalization and analytics. Examples of planned integrations include the items above and others.

Collection Analysis

Does the application have a collection analysis component (assesses collection holdings relative to patron interests)?

Yes, Innovative's solutions include this today in Polaris and Decision Center for Sierra.

Personalization

If the application uses topic or subject personalization, how are these categories determined?

- **Manually set by patron?** Patrons can opt in to share preferences by manually selecting from a set number of options. The library can opt in to additional options that infer information from previous use of the library site.

What types of campaigns are supported?

- **Welcome messages for newly registered patrons?** Yes.
- **Messages for lapsed patrons?** Yes.
- **Messages promoting library programs or events?** Yes.
- **Generation of library newsletters—general?** Yes.
- **Specialized newsletters or brochures?** Yes.

Vega Promote allows the library to set up active campaigns and send other personalized promotions. We offer templated options for patron registration, patron renewal, anniversary celebrations, and other common library campaigns. Every library serves a unique community, and they have the flexibility to create any campaign that supports their needs. Whether it's makerspace offerings, children's programs, fundraising, or something we've never thought of, libraries have the ability to create custom campaigns. For libraries that purchase Promote and Program, there will be direct connections to help the library market its events.

Online Registration

How does the online registration validate residency or other requirements? The software validates that the address itself is valid and properly formatted. Libraries have the flexibility to set up custom processes to handle online registration in a way that complies with their local policies.

ILS Circulation Notice Replacement

Can the application replace the standard messaging functions of the circulation module of the ILS, such as sending notices for overdue items, hold notifications, almost-due notifications? Yes, Vega Connect includes an e-mail design tool and templated circulation messages to give libraries more attractive, informative, and customizable messages for patrons.

External Data Sources

Can the application use external data sets in its marketing analysis or analytics, such as census

data or other sources of demographic data? This is planned for future developments.

Customer Relationship Management Integration

Does the application make use of a third-party customer CRM? As the supplier of both the integrated library system (ILS) and the library marketing and patron engagement technologies, we use the ILS as the database of record. Vega LX transforms your existing ILS into a customer relationship management system.

How Many Libraries Have Implemented Your Solution?

We have approximately 45 libraries involved with the Vega Library Experience (LX) platform.

Gale Engage

Gale provides a wide variety of content and technology products and services for libraries and is part of Cengage, a major publisher of textbooks and digital learning materials. The company introduced Gale Engage to help libraries with patron engagement and marketing in November 2019. Gale introduced a related product, Gale Analytics on Demand, in 2014 as a tool to enhance library patron data with external sources, US census data, and the Mosaic segmentation services from Experian.

Gale Engage provides a variety of analytical and reporting features to help a library better understand the characters of its patron community and its performance or impact. The product can create lists of patrons by segment but relies on external tools for message creation and distribution. Gale Engage works with any major integrated library system and does not replace the ILS or the library's catalog or discovery interfaces.

The general characteristics of Gale Engage and Gale Analytics are described in press announcements.

Description from Gale press release:

Gale Engage provides:

Data Synthesis: Upload disparate data files from various vendors (i.e., SirsiDynix, RBDigital, and others) and system data. Customized scripts take raw data and visually display cohesive metrics.

Customizable Dashboard and Visual Reporting: Ready-to-use visualizations allow users to view trends and key performance indicators to design goals around data, manage reports more efficiently, and make better decisions. The dashboard also aligns circulation to IMLS benchmark data, enabling library staff to see performance against the greater library field.

Patron Groups: Cardholders are categorized into groups based on their interests—with

automatic and custom tagging options—allowing for more relevant communications.

Email Targeting: Email campaigns can be easily managed by connecting Gale Engage to an email marketing system like MailChimp, or by exporting lists of patron groups for use through the library's preferred email tool.

Social Media Management: Post to multiple library social media accounts for Facebook, Twitter and Pinterest as well as track key metrics, directly from the Gale Engage dashboard.

Privacy by Design: Gale Engage is compliant with relevant field practices and uses end-to-end encryption to protect patron privacy and personally identifiable information (PII).⁵

A related product, Gale Analytics, gives libraries insight into library impact through methodologies that include blending library data with external demographic data sets. From a press release:

Gale Analytics easily merges libraries' integrated library system (ILS) data with Mosaic segmentation from Experian and other datasets. Using interactive dashboards in Tableau Reader, users can segment households based on demographic and lifestyle criteria—drilling down into rich visuals, dynamic maps and downloadable custom mailing lists based on segmentation.

Gale Analytics' new interactive dashboards include:

Gale Analytics: Community Insights: Segments households in a library's service area (patrons and non-patrons) based on interest, income, presence of children and allows libraries to build custom marketing lists with a household address or email. As change happens over time, libraries can better understand and visualize their community's current library activity and how to effectively meet their needs. Dashboard controls allow for more dynamic analysis and customized output.

Gale Analytics: Digital Collections: Blends eBook and audiobook vendor data with segmentation and lifestyle data to provide demographic insight into who the library is serving and how to better inform collection development. Whether analyzing by genre or household type, this dashboard helps libraries understand not only what is being checked out, but by what segments, when, how often and more.

Gale Analytics: Physical Collections: Combines checkout data from a library's ILS with segmentation and lifestyle data to assess how their community is using print resources. Many existing collection analysis tools provide only basic insight into the number of checkouts by genre or format. Whether analyzing by genre or household type,

this dashboard helps libraries understand not only what is being checked out, but by what segments, when, how often and more.

Gale Analytics: Patron Insights: Segments patrons (at the household level) based on interest, income, technology use, presence of children and more. As change happens over time, your library can uncover the types of patrons your library attracts, as well as the types of users that need better outreach.

Gale Analytics: Branches: Tracks cardholder activity across various branches in a single library system. This dashboard provides insight into where and how individual consumer types are engaging with the library system. The resulting analysis allows staff to tailor materials, programs, services and outreach, as well as provides a holistic view of home-branch, non-home and multi-branch use.⁶

VENDOR RESPONSES

How Is Your Marketing Application Offered?

Both Gale Engage and Gale Analytics are stand-alone, subscription-based platforms that function independently of any other platform or software solution.

Which ILS Products Does Your Product Support?

Both Gale Analytics and Gale Engage are ILS-agnostic; the Engage platform is built to accommodate any consistent data structure output and use for analysis, marketing, and visualization. Gale Analytics uses structured data extracted from any ILS to provide mapping and demographic analysis of patrons and non-patrons.

Included or Optional Components

Gale Engage provides many data visualizations based on data ingested to allow for understanding of library performance and usage. Categories included can be physical materials circulation, e-book usage, program attendance, transaction trends, and PC reservation statistics.

Gale Analytics analyzes genre and category information on physical and digital resources as well.

Implementation Process

Please describe the general steps involved with implementing your solution, such as configuration, ILS integration, data transfers, etc.

Gale Engage setup might involve API configuration to an ILS, mail client, or social media platforms.

The setup and training process for Gale Analytics and Gale Engage is included in the subscription cost. We work with libraries on developing a Success Plan to ensure the tools support their specific goals. Our goal is to help make the process of working with data approachable, actionable, and impactful.

Services or Tools to Optimize Product Impact

The setup and training process for Gale Analytics and Gale Engage is included in the subscription cost. We work with libraries on developing a Success Plan to ensure the tools support their specific goals. Our goal is to help make the process of working with data approachable, actionable, and impactful.

What channels does the application use for distribution of messages to recipients? Engage utilizes both an internal e-mail client and the ability to export e-mail addresses to be used with any e-mail program. Gale Analytics outputs e-mail addresses based on data filtering, to then be used with any e-mail program.

Are there per-message charges incurred? No.

Patron Privacy

The library controls what patron data is uploaded to Gale Engage. Only the minimum required PII is collected, and that is encrypted whenever it is uploaded or stored.

The only items of PII that are collected by Engage are the patron's library barcode identifier and (where available) e-mail address.

Engage never collects or uses personal names or mailing addresses.

How does the application handle patron borrowing history? Gale Engage connects the patron barcode with borrowing history, utilizing only genre and item type, to assist with customized marketing outreach that is based on patron activities.

What other data sources are incorporated into personalization or analytics?

- **E-book access (overall or by specific patrons)?** Yes.
- **Website use logs?** No.
- **EZproxy or other proxy server logs?** Yes.
- **Patron participation in library programs from event manager?** Yes.

Collection Analysis

Does the application have a collection analysis component (assesses collection holdings relative to patron interests)?

Gale Engage simply ties activities to patrons, which allows the library to market materials and promote programming to those that have shown an interest in these materials previously. While the collection is not analyzed (outside of usage), it is appended to the patrons, while remaining anonymous.

Personalization

Personalization is automated based on checkout/library use activity, by barcode. Library can change how a patron is categorized by number of uses of a genre or item type.

What types of campaigns are supported?

- **Welcome messages for newly registered patrons?** Yes.
- **Messages for lapsed patrons?** Yes.
- **Messages promoting library programs or events?** Yes.

Gale Engage can group or target New Patrons and Expiring Patrons. It also has the capability to create targeted marketing lists based on specific programs, events, or subject interests.

Notes

1. BiblioCommons, “BiblioEmail Is Now Included with BiblioWeb as Part of a Digital Experience Platform,” news release, June 24, 2021, <https://librarytechnology.org/document/26406>.

2. See Springshare, “Springshare Announces LibConnect: Email Marketing and Engagement Product,” news release, September 21, 2021, <https://librarytechnology.org/document/26638>.
3. Marshall Breeding, “OCLC to Launch a New Product for US Public Libraries,” *Smart Libraries Newsletter* 38, no. 4 (2018): 2–4, <https://librarytechnology.org/document/23500>.
4. Marshall Breeding, “Innovative Interfaces Introduces Vega,” *Smart Libraries Newsletter* 41, no. 3 (2021): 2–5, <https://journals.ala.org/index.php/sln/issue/view/Issue/790/555>.
5. Gale Group, “Gale Delivers Vital Insights into Library Activity with Gale Engage Launch,” news release, November 12, 2019, <https://librarytechnology.org/document/24703>.
6. Gale Group, “Gale Analytics Launches New Interactive Dashboards to Help Public Libraries Gain Deeper Insights into Community Interests and Needs,” news release, June 30, 2020, <https://librarytechnology.org/document/25306>.

Additional Resources

Additional Resources on Library Marketing

Dempsey, Kathy. *The Accidental Library Marketer*. Medford, NJ: Information Today, 2009.

———. *Libraries Are Essential* (blog). <https://www.librariesareessential.com/>.

Enis, Matt. “Marketing Platforms | Product Spotlight.” *Library Journal*, May 5, 2021. <https://www.libraryjournal.com/?detailStory=Marketing-Platforms-Product-Spotlight>.

Johnson, Jenny. “A Fresh Look at Public Library Marketing.” *OCLC Next* (blog), August 7, 2018. <https://blog.oclc.org/next/a-fresh-look-at-public-library-marketing/>.

Kitchener Public Library and Waterloo Public Library. “Request for Proposal for a Library Management System for Kitchener Public Library and Waterloo Public Library.” Procurement document, May 15, 2017. <https://librarytechnology.org/procurement/item.pl?id=134>. The RFP was written to serve both Kitchener and Waterloo libraries for their integrated library system. It is an early example of a library seeking patron engagement capabilities as an essential component of its technical infrastructure.

OCLC. *US Public Libraries: Marketing and Communications Landscape*. Dublin, OH: OCLC, 2018. https://www.oclc.org/content/dam/research/publications/2018/216084_2018_Public_Library_Marketing_Report.pdf.

Public Library Association. “Marketing Strategies.” <https://www.ala.org/pla/resources/tools/public-relations-marketing/marketing-strategies>. Most resources listed date from 2016–17.

Santa Cruz Grand Jury Report. *Patron Privacy at Santa Cruz Public Libraries: Trust and Transparency in the Age of Data Analytics*. June 24, 2019. <https://www>

[.documentcloud.org/documents/6176228-Santa-Cruz-Public-Libraries-Grand-Jury-2019-Report.html](https://www.documentcloud.org/documents/6176228-Santa-Cruz-Public-Libraries-Grand-Jury-2019-Report.html).

York, Jessica A. “Grand Jury: Santa Cruz Libraries Should Better Protect Patron Privacy.” *Santa Cruz Sentinel*, June 30, 2019. <https://www.santacruzsentinel.com/2019/06/30/grand-jury-santa-cruz-libraries-should-better-protect-patron-privacy/>.

Related Articles by the Author

Breeding, Marshall. “Innovative Interfaces Introduces Vega.” *Smart Libraries Newsletter* 41, no. 3 (2021): 2–5. <https://librarytechnology.org/document/26218>.

———. “OCLC to Launch a New Product for US Public Libraries.” *Smart Libraries Newsletter* 38, no. 4 (2018): 2–4. <https://librarytechnology.org/document/23500>.

———. “Smarter Libraries through Technology: Customer Relationship Management.” *Smart Libraries Newsletter* 38, no. 2 (2018): 1–3. <https://librarytechnology.org/document/23336>.

———. “Smarter Libraries through Technology: Engagement Technologies for Public Libraries.” *Smart Libraries Newsletter* 41, no. 3 (2021): 1–2. <https://librarytechnology.org/document/26217>.

———. “Smarter Libraries through Technology: Ethical Analytics.” *Smart Libraries Newsletter* 41, no. 5 (2021): 1–4. <https://librarytechnology.org/document/26224>.

———. “Social Media Disconnect: Considering the Role of Social Media in Library Marketing Strategies.” *Computers in Libraries* 41, no. 8 (2021): 9–11. <https://www.infotoday.com/cilmag/oct21/Breeding--Social-Media-Disconnect.shtml>.

Notes

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