

**“But How Will We Know If It’s Working?”:
Measuring Effectiveness of Virtual Library
Communications in Response to COVID-19**

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Abstract: This practical research outlines a response to the obstacles presented by COVID-19 for marketing, outreach, and communications activities by a multi-site hospital library system serving a healthcare network during a global pandemic. Using the electronic distribution of its newsletter as a case study, this study evaluates the effectiveness of available virtual communications and distribution channels. The objectives of the study efforts were to evaluate and understand which marketing and communications distribution channels were effective for reaching end-users, measure uptake of the library newsletter within each distribution channel to assess the capacity and set expectation levels of each method, and to reflect on library staff time and energy applied to each marketing channel effort to gauge effort over return. The study shares approaches, tools and considerations for this evaluation practice while contributing to the literature in an overlooked and under-published area of discussion.

Keywords: Evaluation, Assessment, Library Communications, Web-based communication, Evidence-based practice

The global COVID-19 pandemic has challenged how all types of libraries conduct their daily service and space operations, but also how they successfully communicate, promote, and market library services, news, and programs to end-users. This paper explores the important and relatively unexplored issues of measuring and evaluating effectiveness of virtual or online communication channels used for library marketing initiatives. Much has been written on evaluating the end-result impact of marketing efforts (such as higher usage statistics, increase uptake of a service, or more bodies at an event), but as will be shown, surprisingly little literature exists on the tools, approaches, and considerations for assessing the channels used for marketing and communication in a virtual environment. Evaluating the effectiveness of virtual or online communication channels is both valuable and necessary, given the ways COVID-19 has driven libraries to connect and engage with their clients, stakeholders, and communities in a predominantly virtual space. This case study of a monthly newsletter by a multi-site hospital library system serving a healthcare network evaluates the effectiveness of available virtual communications and distribution channels, and aims to share approaches, tools, and considerations for this evaluation practice while contributing to the literature in an overlooked and under-published area of discussion.

Background and Context

Unity Health Toronto (UHT) is a multi-site health network comprising three academic teaching hospitals (St. Joseph's Health Centre, St. Michael's Hospital, and Providence Healthcare) fully affiliated with the University of Toronto. The Library Services department is a team of 9 staff (5 Information Specialists/Librarians, 1 Information Specialist/Archivist, 2 Library Technicians, and 1 Manager). This academic health sciences library supports UHT staff, physicians, residents and students completing placements, and research teams affiliated with UHT. These groups are referred to as the library's "clients." The roles and program areas of the library's clients vary greatly, from frontline nurses and critical care emergency departments, to health discipline groups such as occupational therapists and speech-language pathologists, social workers, and administrative roles in human resources, senior leadership, education, research, quality improvement, and even engineering. Library Services is not mandated to support the information or education needs of patients, families, or the community. There are three

physical library spaces, one at each UHT site, which include print collections of books, serials, and medical texts, and spaces for independent study, computer workstations, photocopiers, and printers. The most demanded services provided by the library team are requests for literature searches, collaboration for knowledge synthesis projects (e.g., systematic reviews, scoping reviews, etc.), library workshops and training sessions, research assistance for health and medical resources online and in print, and use of the library's spaces.

UHT Library Services maintains a strong emphasis on its activities for marketing and communication to client groups across its three sites.



Figure 1: Library Link Newsletter, June 2020

Approximately 15–20% of library staff time is dedicated to marketing and promotion vis-à-vis the Library Services' Marketing Committee, preparation of marketing materials, and outreach efforts. Since 2014 the library has communicated with clients through the Library Link Newsletter, (Figure 1: Library Link Newsletter, June 2020) which is a monthly newsletter that contains information and news for upcoming library workshops, new online

resources, new or updated services, advocacy efforts, information about contributions to the organization, and any other items of interest to clients. Since its beginnings, the format, layout, design, approach to writing content, and intended purpose of the Library Link Newsletter has focused primarily on being printed then physically distributed throughout the organization. By 2016, in concert with print distribution, the Library Link Newsletter was also distributed using MailChimp and by email as an electronic PDF newsletter to clients with library accounts in the integrated library system (ILS).

In addition to the monthly Library Link Newsletter as a communications tool, the Library Services department also leverages corporate communication channels, posters and flyers, word-of-mouth marketing, social media, and its library web properties to share marketing and promotional efforts for its workshops, new resource trials or demos, library space hours, and more.

In March 2020, with the advent of the COVID-19 pandemic in North America and public health guidelines to stay home, many swift and austere changes were enforced affecting how all library types could, and should, continue service operations safely. In a healthcare context at UHT, hospital staff members and roles deemed “non-essential” for patient care and clinical service support (i.e., many administrative positions, and research departments) were instructed to work remotely. Initially, the Library Services team members were included in this group of non-essential roles for patient care and were instructed to adapt all in-person services to an exclusively virtual, online environment.

Pivoting to Virtual

When the library adapted to an online-only presence, communication and marketing efforts required careful planning and consideration. Perhaps surprisingly for 2020 (and before), Library Services relied heavily on print marketing efforts (i.e., flyers, posters, printed newsletters) to share and communicate events and news at UHT with clients. To illustrate the strength of printed marketing tools, in the 2019 library workshops feedback forms, 21% of library workshop participants indicated they heard about the workshop through a printed flyer advertisement. For a variety of reasons within the organizational culture at UHT, hospital clinical staff (such as nurses and other patient-facing frontline healthcare roles) tend to overlook library-related communications delivered by email or made available on the Intranet, and

accordingly, those groups are best reached with print communication efforts such as posters and flyers in clinical units, break rooms, and hallways. To reach this population, each month the library would print the monthly Library Link Newsletter and have it posted throughout the hospital sites on designated bulletin boards, in break rooms, throughout the library space, and in most education spaces of the health system.

With the absence of print marketing materials and in-person efforts, the remaining available virtual communications platforms for Library Services were the UHT corporate communication channels, the library websites (one for each site), a subscriber mailing list (MailChimp), a Twitter account, and a WordPress blog. Without a strong or evidence-based understanding of the effectiveness of these virtual communication channels, in June 2020 Library Services undertook an effort to measure and evaluate each distribution channel by focusing on the monthly Library Link Newsletter. The objectives of these efforts were to evaluate and understand which marketing and communication distribution channels were effective for reaching end-users, measure the uptake of the Library Link Newsletter within each distribution channel to assess the capacity or expectation of each method, and reflect on library staff time and energy applied to each marketing channel to gauge effort over return.

Literature Review

This practical research contributes to the literature for assessment and evaluation of library marketing for all library types, but more specifically to academic health sciences, hospital, and special libraries, in areas where gaps exist. There is a wealth of literature on the impact and end-results of marketing initiatives while very little has focused on an assessment of the channels or methods of the marketing communication itself (Foster et al., 2010; Rogers & Nielsen, 2017; Gardois et al., 2012). However, there is a gap in the literature regarding the discussion and application of tools, approaches, and methods for evaluating the effectiveness of the online channels available to libraries for promotion, communication, marketing, and outreach. Very commonly, libraries use social media, targeted email lists, listservs, blogs, corporate communications channels, digital newsletters, and more, but evidence-based approaches to determining the efficacy of these methods and communication channels for marketing to reach intended audiences is scarcer.

Since marketing efforts can take a lot of staff time, it can be equally important to evaluate the overall effectiveness as well as the staff effort required to employ different communication channels for marketing a service, program, resource, or new initiative.

Generally in the literature, libraries that are evaluating and assessing marketing initiatives tend to focus on the end result or final impact of their marketing effort (e.g., “did a marketing campaign for an underused online resource result in higher uptake or increased usage statistics of the resource?”). Fewer studies, however, measure effectiveness of virtual communication channels used for marketing and promotion, more specifically within academic health sciences or hospital librarianship.

An early and unique effort to evaluate marketing effectiveness through measuring engagement with different marketing tools was achieved in 2001 by Harrington & Li. They emphasize the importance of “determining which methods of marketing are most time and cost effective in attracting and retaining community members”, and further they identify that “no studies are available which evaluate the effectiveness of marketing in a virtual learning community. Such limited information about the marketing issues of the virtual community is the primary motivation for this study” (p. 200). Startlingly, this remains true twenty years later. The purpose of their study was to evaluate the effectiveness of marketing efforts for a new academic virtual learning community (VLC) based on survey feedback obtained from chat session participants and through usage statistics “site trackers”. Through survey feedback and site tracking, their study found that “e-mail advertising through listservs was the most effective way for promoting the VLC” (p. 203) and “e-mail advertising was overwhelmingly preferred over all other methods; and the creation of e-mail mailing lists” (p. 206). Despite the prosperity and proliferation of information communication technologies and web 2.0 tools, it appears little research has been undertaken to evaluate the efficacy of these virtual communication tools for marketing purposes.

Gardois et al. (2012) examined the characteristics and effectiveness of web 2.0 services implementation in academic, medical, and research libraries through a comprehensive scoping review study. The web 2.0 activities covered in their review relate to this UHT study because it addresses the effort to evaluate virtual communications platforms. The web 2.0 platforms found in

the scoping review were predominantly conferencing, chat, and instant messaging, while “blogging, podcasts, social networking, wikis and aggregators implementation were also described in a small number of articles” (p. 102). Their approach includes a review of the practice of evaluation through a review of 255 articles of web 2.0 initiatives where fewer than half of the articles examined (122, or 47.7%) contained mention of any evaluation or assessment efforts. Among the total 255 articles, only 69 (27.1%) discussed the effectiveness of their web 2.0 implementation initiative. This exemplifies the current landscape where there is a relative absence of evaluation for virtual communication or engagement efforts in academic, medical, and research libraries.

Similarly, in their case study of academic health libraries marketing, Lamba (2019) used a questionnaire instrument to evaluate marketing and promotional strategies employed by a library serving undergraduate medical students. The study contends that it addresses gaps in the literature by studying marketing in the context of academic health libraries in the digital environment and concludes that the library has not invested adequate energy to marketing in digital or web 2.0 environments. However, even this study does not address the evaluation or effectiveness of digital marketing communication efforts,

In a review of promotional efforts to raise awareness of online library resources to distance education students and faculty, Logan (2019) concluded that “more libraries should be marketing specifically and regularly to distance education students by leveraging existing communication and organizational structures” and ends with the recommendation that “assessing these efforts is important to understanding their effectiveness” (p. 172).

Kennedy (2011), in their review of the literature concluded that “assessment was the weakest part of the marketing plans” (p. 144) and summarizes that “more than half of the libraries did not document a clear assessment plan as part of their cycles of marketing” (p. 153). Kennedy proclaims, “there is an exciting wealth of opportunity for libraries to collaborate to create and test methods of marketing electronic resources and then deposit the results in a repository where other libraries may come to learn about them and how they may apply to their own institutions” (p. 155). This

sentiment motivated UHT Library Services to undertake its study and inspired this research.

Methodology

To distribute the Library Link Newsletter, Library Services used five marketing channels: MailChimp, WordPress, direct targeted email, UHT's corporate communication channel (named "Twice a Week"), and Twitter. To capture and track analytics from direct targeted email and Twice a Week, Library Services used a link management platform called Bitly. The following subsections describe the distribution channels and analytics tools used to measure the virtual distribution efforts of the Library Link Newsletter.

MailChimp

MailChimp is a free online email marketing distribution platform that allows account holders to send content by email to a list of subscribers. This tool allows Library Services to email the contents of its Library Link Newsletter directly and reliably to its subscribers (i.e., clients with accounts in its ILS who have consented to receive the Newsletter). MailChimp has a built-in analytics system that measures opens and clicks. The "opens" data value is defined by how many recipients opened the email message from MailChimp, and "clicks" is how many subscribers clicked on the links embedded in the Newsletter content. The Library Service's Marketing Committee chair transfers the newsletter content from a graphic edition to MailChimp and Library Services sends the newsletter to subscribers within the first week of every month. Since the adoption of MailChimp, Library Services has amassed 575 subscribers, while periodically purging inactive subscribers using the free basic plan.

WordPress

WordPress is a popular free content management system used for blogging, web publishing, and website design. Library Services uses the platform as a means to communicate general information from the library through blog posts, and also relies on the platform as a stable online storage location for the Library Link Newsletter to which users from other distribution channels are directed (Figure 2: Directional flow to WordPress from distribution channels). A png image file of the Library Link Newsletter is uploaded to WordPress along with a brief preamble and description of the

month's features as well as a link to the PDF version of the newsletter. WordPress's embedded analytics tools inform Library Services how many visitors, views, and comments a post has received. WordPress does not provide information on the clicks or engagement of material within a post. The library subscribes to WordPress Premium, which provides a domain and additional editing options.

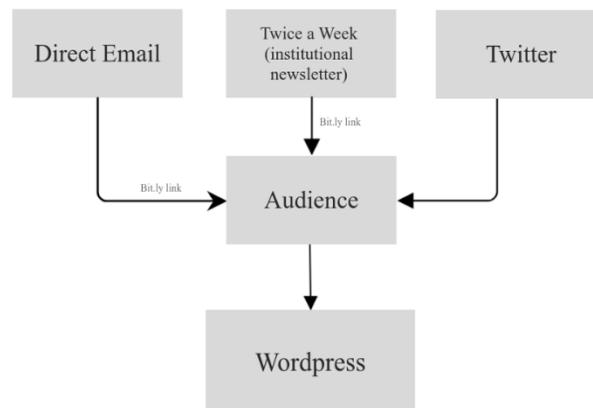


Figure 2: Directional flow to WordPress from distribution channels

Bitly

Bitly is a free online URL shortening tool used to create customizable and memorable URLs. A powerful secondary feature of Bitly is its ability to manage URLs and closely track clicks and engagement over time. Library Services leverages Bitly to create customized URLs (e.g., <https://bit.ly/LibrarylinkNovtw>) that track traffic and clicks to the Library Link Newsletter on the WordPress site. Bitly is a simple and valuable tool to facilitate tracking URL clicks, and through its URL management functionality, unique custom URLs can be monitored to assess the efficacy of a particular communication channel where the custom Bitly URL is shared. For this case study focused on the Library Link Newsletter, custom Bitly URLs were created for the different communication channels outlined in this section, and those distinct URLs were monitored to evaluate each distribution channel's effectiveness for leading end-users to the Newsletter.

Direct targeted email

Each month, the manager of Library Services shares the Library Link Newsletter by email with groups of individuals in leadership roles across the organization. This method allows Library Services to connect with leaders

directly and requests their assistance to distribute the Library Link Newsletter amongst their teams. These emails include a brief bulleted-list description of the newsletter stories, a screenshot of the newsletter, and the custom Bitly URL directing users to the WordPress post.

UHT corporate communication channel (“Twice a Week”)

Twice a Week is UHT’s most extensive communications channel, distributed by email on Tuesdays and Thursdays across the 10,000+ staff network. Submitting the Library Link Newsletter to Twice a Week shares library news across the network efficiently and reliably. On the Twice a Week submission page, Library Services is able to write a short description and creates a distinct custom Bitly URL which directs users to WordPress. The submitted pieces are advertised in Twice a Week a maximum of three times per month. Then on the Twice a Week interface, users have the option to click the title/image of a story that will direct them to an external link (i.e., the WordPress page). Library Services asked the communication department to hyperlink the title/image with the custom Bitly URL so readers would be redirected to the WordPress site for the Library Link Newsletter. Two data points are monitored from this distribution method. The first is from the Bitly URL created by Library Services. The second monitored data point is from UHT’s corporate communications department responsible for Twice a Week. The communications team tracks how many readers click “read more” on the article and provides the data to Library Services to support and inform this study. By selecting “read more”, the user is directed to a different Twice a Week page dedicated to the complete full article for the Library Link Newsletter. These two data points together reveal the true “reach” or capacity of Twice a Week as a communication channel for Library Services.

Twitter

Twitter is a popular microblogging social media platform, allowing users to follow and be followed by accounts, and to share "tweets" of up to 280 text characters. A Library Services Twitter account was created in 2013 and is considered a low-effort distribution method for library communication and marketing. It also provides the opportunity to share the Library Link Newsletter with other library and information professionals working in health and hospital library settings outside of the UHT system. Library Services tweets a link to the WordPress post, in which they invite followers to read the

latest newsletter. The metrics tracked from Twitter are impressions (overall views), links clicked, and total engagement.

Results

The study results confirmed that direct email distribution (MailChimp and direct targeted email) were the most successful channels to reach end-users and clients due to the highest engagement. This result aligns with findings in older studies from Harrington & Li (2001), and Foster et al. (2010). However, for UHT’s circumstances and available virtual communications channels, it was also found that casting a wide marketing net proved beneficial and ultimately worth the minimal extra time involved to connect with individuals outside of email (e.g., Twitter).

Platform	Activity	June 2020	July 2020	August 2020	September 2020	October 2020	November 2020
MailChimp	Opened	195	214	195	184	174	203
	Clicked	7	9	9	10	7	11
Wordpress	WP Views	130	64	85	77	63	48
Direct Email	Custom Bitly URL	42	36	39	31	33	23
Twice a Week	Custom Bitly URL	79	24	32	49	18	23
	“Read more” clicks	37	25	31	14	6	5
Twitter	Link clicks	7	3	2	7	2	3
	Total engagement	8	4	8	9	14	5
	Impressions	128	96	131	95	190	113

Figure 3: Data results of each distribution channel

Platform	Number of potential reach	Opens/views	Engagement
MailChimp	571-579 subscribers	30-40%	1-2%
WordPress	N/A	n=48-130	N/A
Direct Email	301 recipients	Unavailable	7-13%
Twice a Week	~10,000	n=18-79	n=5-37
Twitter	477 followers	19%-40%	1-3%

Figure 4: Distribution channel reach, opens/views, and engagement

Below is a breakdown analysis of each distribution channel, their strengths and weaknesses, and efforts required.

MailChimp

From June to December 2020, the total number of MailChimp subscribers ranged between 571 and 579. On average, MailChimp received the highest number of views per month, ranging between 174 and 214. Overall engagement (i.e., number of times a subscriber clicked the link within the MailChimp message) ranged from seven to eleven, or 1-2%. For context and comparison purposes, 1-2% is only slightly below the engagement average (3-4%) among MailChimp owners in the sphere “Medical, Dental, and Healthcare.” Creating the MailChimp edition of the newsletter generally takes 30-60 minutes to transfer the content, format the layout, and distribute. Overall, while MailChimp requires a moderate level of effort, it is a consistent and effective channel to distribute information to interested users.

WordPress

WordPress views ranged from 48 to 130 throughout the duration of the study. WordPress offers an embedded feature for others to "follow" the blog and receive notifications when new content is posted. However, Library Services primarily uses WordPress as a repository and has not encouraged or advertised the subscribe feature. As a result, they did not consider the number of subscribers for this study, nor did Library Services track WordPress engagement such as comments, new subscribers, or re-blogs. Creating the newsletter's graphic edition designed for the WordPress site was the most time-consuming component of the distribution process. Creating the content and visually designing the newsletter typically takes four to nine hours. Once the design process was complete, creating the blogpost to host the newsletter required little effort, approximately 15 minutes.

Direct Targeted Email

There were 301 people included in the recipient list of direct targeted email sent each month by the manager of Library Services. Library Services did not have a method to track how often the emails were opened; however, Library Services kept track of those who clicked the Bitly URL that led them to the WordPress page. The clicks ranged between 23 and 42, equaling 7-13%, making it one of the most consistent and effective channels to deliver content

to a controlled audiences' inbox. Creating the Bitly link and inserting the png image file required minimal effort, approximately 15-25 minutes.

Twice a Week

There were two data points measured from Twice a Week: one tracked how many people clicked on the article, and the second informed how many people clicked "read more". Unfortunately, there is no data for how many individuals viewed the Twice a Week newsletter as a whole (only those who clicked links). The Library Link Newsletter article's clicks (i.e. the first data point) ranged from 23 to 79 each month, and the second data point (i.e. clicks from "read more") ranged from 5 to 37 each month. Submitting a story to Twice a Week was minimal effort, approximately five minutes. Merely submitting the newsletter as a story in Twice a Week gave the library a large platform of potential viewership which involved very little work or maintenance.

Twitter

For the duration of this study, the Library Services Twitter account hovered around 447 followers. On average, the newsletter tweet was seen by 19-40% of the prospective audience which could include followers and non-followers. The Twitter engagement rate is measured by those who click the newsletter URL (and are taken to the WordPress site), which ranged between 1-3%. Sharing the link to the WordPress newsletter on Twitter is minimal effort, approximately five minutes.

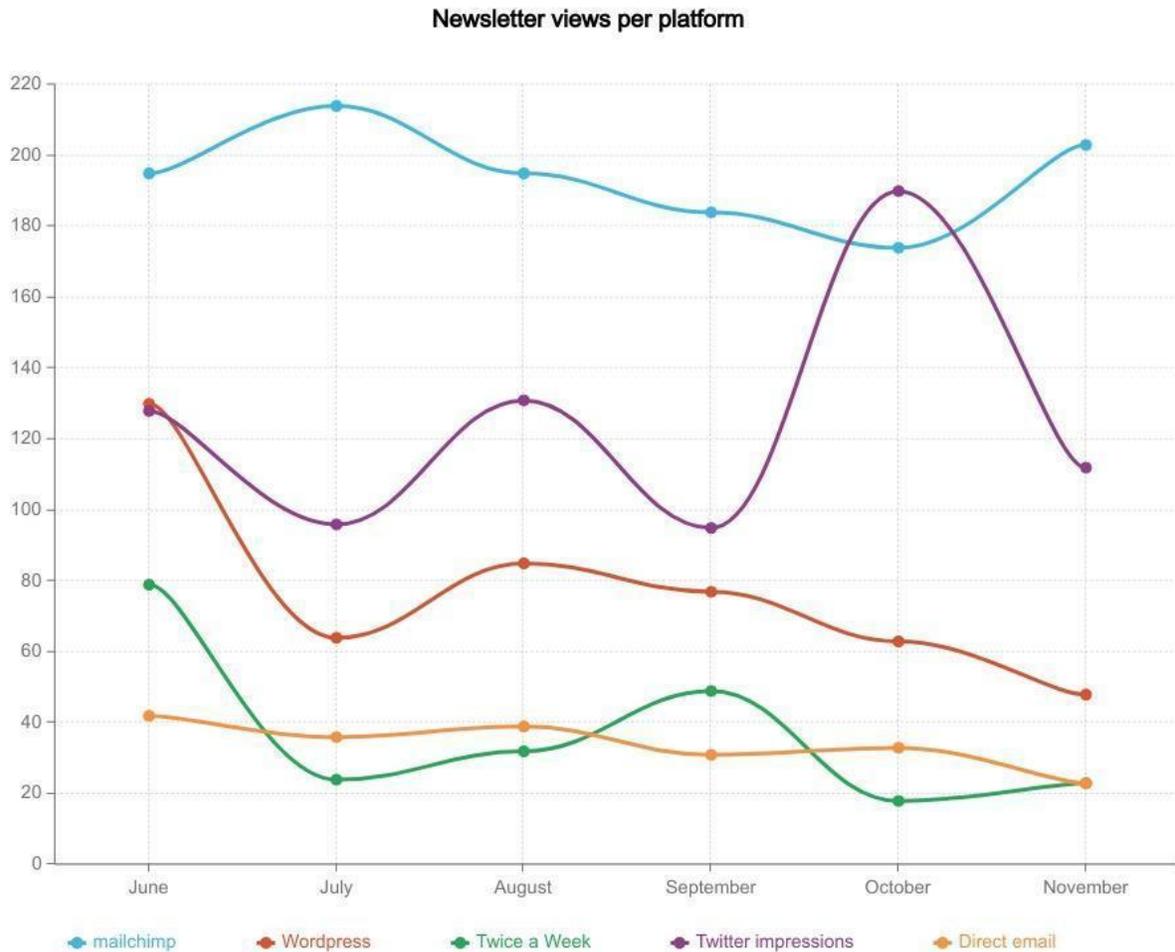


Figure 5: Comparison of total newsletter views from each distribution channel per month

Discussion

Before this study, little consideration was given to the evaluation and assessment of online distribution or communications channels for the library or its monthly newsletter. Measuring the reach of available online communications channels helped Library Services understand the effectiveness of each effort in connecting with end-users. With COVID-19 and remote work as the “new normal” for many hospital administrative and research staff, taking stock of virtual library marketing and communication efforts was an important effort to develop evidence-based practice, apply new knowledge, and experiment with marketing analytics tools.

A primary objective of the study was to evaluate the online distribution channels for their efficacy and level of effort from Library Services to manage them. Before this undertaking, the library team was not convinced that each of the distribution methods were effective or worth the effort. This experiment surprised the team by showcasing better results than expected in channels which were presumed to have no outcomes, such as Twitter, and demonstrated that each platform possesses unique opportunities for reaching end-users. Having multiple distribution channels proved useful as it granted the opportunity to catch more individuals' attention. Library Services also learned that some channels do well consistently, while others have periodic spikes.

This project prompted Library Services to consider how Library Services can encourage more engagement across the end-user platforms. Heightened engagement could include clicking more of the articles' links, more commentary, or posing questions. In the future Library Services hopes to encourage more engagement from a broader audience using its distribution channels and marketing efforts.

Another topic worth further consideration is the format of the Library Link Newsletter. The library distributes two editions of the newsletter, one designed for a print format, and another translated to the MailChimp audience. However, as the library is no longer distributing the newsletter in print (for the foreseeable future), questions arose surrounding the necessity of print-focused marketing materials. It provoked thoughts on tradition and why things are done in the way they are. Future work includes a re-examination of the newsletter's format and developing content for the web and an online audience rather than adapting a print newsletter to a virtual distribution method. Overall, this exercise would be beneficial to other libraries who may be unsure if their virtual communications channels for marketing require evaluation and assessment.

Recommendations

Overall, many variables come into play when choosing online marketing distribution channels best suited for a particular library's marketing such as cost, time, intended audience behavior, and available communication technologies. UHT's Library Services recommends readers perform a similar experiment to the one detailed in this paper to better understand effectiveness of virtual marketing tools in other library settings. Some general recommendations are shared below:

1. Focus on direct email. It is demonstrably the most effective method for connecting with a targeted audience, as it connects directly with end-users.
2. Make use of free resources. Bitly, MailChimp, WordPress, and Twitter all offer free versions.
3. Leverage corporate communications channels such as email lists and other department communications. By leveraging existing communications channels, the library's marketing content has the opportunity to reach broader audiences with considerably less effort than solely relying on library-led and library-operated channels.

Conclusion

This study provided Library Services with a valuable opportunity to apply an analytical lens to its distribution methods for virtual marketing and communication during a pandemic when in-person marketing was not feasible or safe. The exercise showcased trends that provided a better understanding of the effectiveness of available virtual distribution channels and, by measuring each effort, it set an expectation level for anticipating engagement for each virtual communication channel. A positive and unexpected outcome of the study was the validation and encouragement for Library Services staff to observe the success and measured uptake of their marketing efforts in action.

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