Using Google Analytics to Evaluate an Email Information Literacy Program for Medical and Dental Students

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OBJECTIVES

An email information literacy program has been effective for over a decade at Université de Montréal's Health Library. Students periodically receive messages highlighting the content of guides on the library's website.

- We wish to evaluate, using Google Analytics, the effects of the program on specific webpage statistics.
- Using the data collected, we may evaluate emails as a diffusion mode and pinpoint popular guides as well as others that need improvement.

METHODS

- Two series of eight bi-monthly email messages were sent.
- 1st- (n=291) and 2nd-year (n=281) medical students (MD) were enrolled in the program's mailing lists by their faculty, and none of the students opted out.
- Email addresses of 1st- (n=86) and 2nd-year (n=83) dental students (DMD) were provided by their faculty. Our 1st-year DMD mailing list also included 15 graduate students; 8 graduate students and 49 professors completed the 2nd-year mailing list.
- Google Analytics (GA) profiles were configured in June 2009 on the library website to collect visitor statistics.
- Unique links specifically associated with the originating emails were designed using the GA Links Builder. This approach allowed us to gather information on guide usage, such as the visitor's program of study, duration of page viewing, number of pages viewed per visit, as well as browsing data. We also followed the evolution of clicks on GA unique links over time.
- At the end of the program, a link to an online survey was sent to all participants to assess the relevance of the program.

GA RESULTS

The proportion of participants who clicked on email links was 6,8%. The program generated 520 visits to our website between October 19th, 2011 and March 27th, 2012. The program brought 68 new visitors to our site.

Fig. 1 Visitor statistics

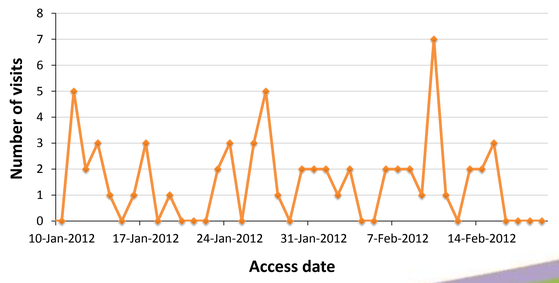
		Webpage visitors		Average min/page		Additional pageviews	
	Subject	**MD**	**DMD**	**MD**	**DMD**	**MD**	**DMD**
1st year mailing list	Reference works	57	0	02:13	00:00	2,1	0,0
	Library resources via Proxy	40	2	02:54	00:00	1,9	1,0
	Critical reading	38	1	01:05	00:00	2,1	0,0
	Health sciences statistics	15	2	00:33	00:45	1,9	2,0
	MD or DMD subject guide	13	6	01:13	00:17	2,1	2,0
	Building a search strategy	10	0	00:01	00:00	1,3	0,0
	Embase and Medline	2	0	04:35	00:00	4,0	0,0
	eBooks	0	24	00:00	05:46	0,0	4,1
	Average	***22***	***4***	***01:48***	***02:16***	***1,9***	***1,1***
2nd-year mailing list	CINAHL*	N/A	61	N/A	05:54	N/A	2,5
	Web of Science*	N/A	2	N/A	00:00	N/A	1,0
	Pharmaceutical information	43	9	01:36	00:14	2,1	1,2
	Clinical practice guidelines	20	22	00:13	03:02	1,4	2,1
	Consumer health information	15	9	09:46	00:19	2,0	1,0
	PubMed and Medline	11	11	02:46	02:43	2,0	1,8
	Evidence-based medicine databases	13	6	00:57	00:08	2,0	1,2
	Google and Google Scholar	6	4	00:01	00:02	1,0	1,3
	How to cite - Vancouver style*	4	11	00:00	00:08	1,0	1,8
	Scientific communication	4	26	20:06	07:03	3,0	2,8
	Average	***15***	***16***	***05:04***	***02:09***	***1,8***	***1,7***
Email footnote	Guide listing	15	3	01:00	08:55	2,4	5,3
	Chat reference	2	6	00:00	00:00	1,0	1,0
	Subject guides	2	5	00:00	00:22	1,0	2,5

**DMD graduate students only.*

Note: If a visitor exited the website immediately after viewing the referred page, no data was collected for time spent on page.

Fig. 2 Guide access over time

Some students visited referred guides several weeks after receiving messages, thus keeping them for future reference. The following graph shows how MD students accessed the Pharmaceutical information guide over a 6-week period.



SURVEY RESULTS

We obtained 46 responses to the survey, with the following distribution: 1st-year MD=19, 2nd-year MD=16, 1st-year DMD=1, 2nd-year DMD=9, and one dentistry professor. This corresponds to an overall 5,7% participation rate.

Fig. 3 Why didn't you click on the email links?

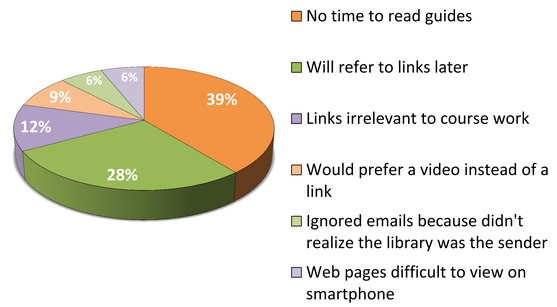


Fig. 4 What are your general impressions of the email program?

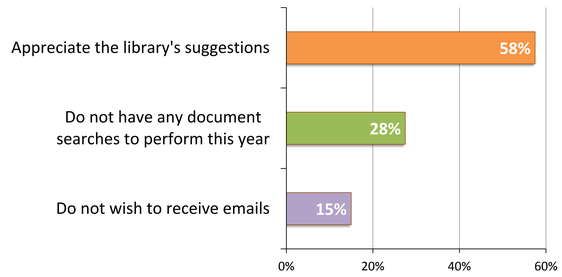
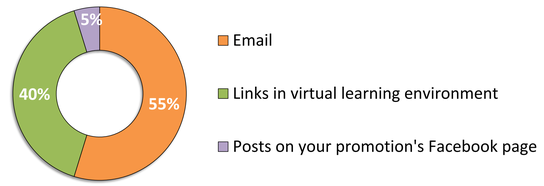


Fig. 5 What would be the most efficient way to point out useful resources to you?



DISCUSSION

Email program

- Some success was observed with messages sent to 2nd-year DMD graduates/professors, whereas 1st-year DMD students hardly clicked on email links.
- As general page views for specific guides did not increase substantially in the days following the emails, we can conclude that no significant word of mouth occurred among students.

Survey

- A minority of respondents found the links irrelevant to course work (12%) or did not wish to receive emails (15%).
- As most respondents admitted that they did not click on the email links, only a minority did evaluate individual guide relevance. We could not rely on this small sample to qualitatively assess guides.

CONCLUSIONS

- GA was a free and effective means to evaluate an enduring program. We found that less than 7% of email recipients clicked on the suggested links, which indicates that we could optimize this mode of communication, by adding the library's logo for example.
- The survey also suggests that optional email information literacy doesn't fit easily in a student's already busy schedule.
- As proposed by survey respondents, it might be more relevant to provide point-of-need links to library instructional materials directly in the programs' virtual learning environments. Our challenges will be to gain access to the latter and target specific courses.
- This poster reflects the importance of planning, managing and adapting the content of virtual communications aiming to increase web traffic.

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