

OPPORTUNISTIC DISCOVERY OF INFORMATION AND MILLENNIALS: AN EXPLORATORY SURVEY

A.J. Million, M.A. (1); Sheila O'Hare, J.D., M.A. (2); Nathan Lowrance, M.A. (1), and Sanda Erdelez, Ph.D. (1)
(1) School of Information Science and Learning Technologies, University of Missouri, (2) School of Library and Information Management, Emporia State University

ABSTRACT

Because digital information can be accessed anywhere, there has been a resurgence of interest in information encountering (IE) and the opportunistic discovery of information (ODI). However, no studies distinguish between the task-oriented contexts associated with IE and the more diffuse situations in which ODI occurs. The authors conducted a survey (n=48) of undergraduates between 18 and 25 to identify mechanisms, formats, sources, and contexts that provide opportunities for information acquisition. Further, the survey was adopted to cover a variety of task-specific (IE) and non-task specific scenarios (ODI). Results seem to confirm that both IE and ODI are common, but the mechanism of delivery and the format in which information is presented impact the frequency of occurrences.

BACKGROUND

MILLENNIALS

Howe and Strauss (2003) identify several core Millennial traits. Several studies (DiLullo, McGee and Kriebel, 2011) have since expanded on their work: Millennials prefer to learn via the use of technology, they are active learners who prefer customized assignments, they value immediacy and convenience, and they they prefer small group work. Most importantly, Millennials are multitaskers.

INFORMATION BEHAVIOR

In 1997, Erdelez introduced the concept of information encountering. She noted that encountered information includes problem-related (previously sought) and interest-related (new) information.

Several studies have affirmed the role of ODI in human information behavior, noting that it serves multiple purposes in refining, expanding, and redirecting searches (Andre, Teevan and Dumais, 2009; Miwa, Egusa et al., 2011). Research suggests that multitasking, permeable boundaries between task and non-task information behavior, and ODI may signal a departure from traditional information-seeking models. Rheingold (2012) has posited a "curated lifestyle of constant interrelated activities."

RESEARCH QUESTIONS

1. How often does ODI occur among Millennials?
2. How do mechanisms of delivery and the format in which information is presented relate to the frequency of ODI occurrences?
3. Is there a correlation between social media usage and the frequency of ODI?
4. In regard to the distinction between task (IE) and non-task (ODI), and given that each may create opportunities for multitasking, what are the implications?

METHODS

CONTEXT

In order to explore how often IE and ODI occur in the lives of Millennials, we created a matrix that organized the domains related to information context. Courtright (2008) discussed "context" in information behavior research, noting that the term has multiple uses.

SURVEY

To identify the frequency of occurrence of IE and ODI in various contexts, the authors designed survey questions to address many behaviors and information types. We produced a 39-question survey. Of these questions, 12 were contextual (or demographic), while 27 focused on the topic at hand. All questions were written using natural language and utilized a five-point Likert scale. Not every prompt was discernible as IE or ODI, and task or non-task.

COLLECTION PROCESS

The survey was made available online to students at the University of Missouri (MU) for a one-week period in December 2012. It was distributed via Qualtrics. Participants were recruited by posting a notice on the MU Libraries homepage, stapling flyers on campus, and leaving handbills at computer lab work stations. Five \$50 gift cards were awarded to participants at random to encourage participation.

DATA ANALYSIS

Following our recruitment, data was analyzed using a multi-step process that emphasized the reporting of descriptive statistics. Results were limited to undergraduate students under the age of 30. In addition to our tabulation of statistics, Pearson Chi-square (χ^2) tests were conducted using the SPSS software package and correlational scores were tabulated.

RESULTS

FIGURE 1. RELEVANT SCORES OF SIGNIFIGANCE ($\geq 1\%$)

NO.	QUESTION	SIG. LEVEL
Q.25	I receive pictures via text message from my friends that are surprisingly interesting to me.	0.059
Q.28	When I am getting a book off the shelf for a class in Ellis Library, I find other books nearby that are useful.	0.023

RARE RESPONSES

- One question about "links to attention-grabbing videos" on Facebook and mobile devices collected few affirmative responses. Most respondents (n=26) said that this "never/almost never" or "seldom" takes place.

RESULTS CONT.

- Low levels of ODI were identified in several other contexts. These included information from displays, televisions in public places, and videos from mobile devices.

COMMON RESPONSES

- Our survey found the highest levels of ODI were reported by Millennials through images in text messages; articles found on the Web while searching out of boredom; discussions in class; and links in emails.
- Both IE and ODI experiences in our study sample showed a variety in frequency distributions.
- Survey responses suggest that Millennials unexpectedly find information relevant to personal activities in some – but not all – academic contexts.

CONCLUSIONS

FINDINGS

Although this was an exploratory study, we were able to quantify that ODI is likely to occur while students engage in search-related and non-search related activities. IE also occurs. The frequency of ODI was high in several contexts and low in others, suggesting that these experiences do not occur uniformly.

FUTURE WORK

- Ascertain if the type of activity (on- or off-task) influences the extent to which Millennials encounter information.
- Obtain a sufficient, represented sample size.
- Refine our survey questions so additional contextual factors can be identified and considered.

REFERENCES

- André, P., Teevan, J., & Dumais, S. T. (2009). From x-rays to Silly Putty via Uranus: Serendipity and its role in Web search. In *CHI '09: Proceedings of the SIGCHI Conference on Human Factors in Computing Systems*, 2033-2036.
- DiLullo, C., McGee, P., & Kriebel, R. M. (2011). Demystifying the millennial student: A reassessment in measures of character and engagement in professional education. *Anatomical Sciences Education*, 4(4), 214-226.
- Erdelez, S. (1997). Information encountering: A conceptual framework for accidental information discovery. In P. Vakkari, R. Savolainen, & B. Dervin (Eds.), *Information seeking in context* (pp. 412-421). London: Taylor Graham.
- Howe, N., & Strauss, W. (2003). *Millennials go to college: Strategies for a new generation on campus: Recruiting and admissions, campus life, and the classroom*. Great Falls, VA: American Association of Collegiate Registrars and Admissions Officers.
- Miwa, M., Egusa, Y., Saito, H., Takaku, M., Terai, H. & Kando, N. (2011). A method to capture information encountering embedded in exploratory Web searches. *Information Research*, 16(3). Retrieved from <http://informationr.net/ir/16-3/paper487.html>
- Rheingold, H. (2012). *Mind amplifier: Can our digital tools make us smarter?* TED Conferences. Kindle Edition.