

FACTORS AFFECTING BOOK SELECTION IN ACADEMIC LIBRARIES

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ABSTRACT

With the rapid development of rival media as the preferred source for knowledge acquisition, libraries needs to justify and register their continuous contribution to the academic enterprise as it is regarded as a center-piece for the institution's effectiveness. Although, the academic libraries in higher institutions are richly endowed with scholarly materials especially books which largely aid knowledge acquisition but patrons suffer from negative effects ranging from fatigue during book searches to information overload etc. Therefore, they often turn to other media outlets for required materials. This could reduce patronage from the academic community thereby negatively affecting and discouraging further investment in the academic library. To tackle this problem, this paper seeks to understand how user searches are conducted including factors influencing user search patterns and book selection criteria generally in academic libraries. Taking UTM library as a case study, a survey was carried out to measure the effect of several influential factors affecting the patrons' choice of books and present the most important factors which would eventually be used in the design and implementation of a more effective library information system that will address the identified issues.

KEYWORDS: *Library Information System, Academic libraries, search pattern, book selection criteria*

1 INTRODUCTION

The challenge of information overload, which is prevalent in academic environments, for students and lecturers, is a major issue that requires urgent attention in the library community.

It has become clear that traditional methods of information retrieval in the library have regularly failed to provide materials based on user profiles during a query session [1] hence increasing fatigue thereby contributing to the frustration of patrons during the visit. These situations generally put the library in a vulnerable position.

Zhen (2007) hinted that traditional library systems have failed to meet up with the demands of readers due to advancement in Information technology [2]. He argued that the university library has gradually transformed into a digital library hence providing recommendation to individual users based on their interest is the way forward [2]. Given the aforementioned premises,

there's growing motivation to know the root cause of information overload and fatigue in patrons when the book selection service is put to use. Also there's need to understand what influences them to search for books in a particular manner and how these searches are actually carried out.

Therefore, it is important to understand the psychology of patrons when they visit the library in order to provide an improved book selection service.

The rest of this paper is organized as follows. Section 2 discusses related works while section 3 explores some of the major influential factors affecting book selection generally. In order to improve the book selection service, a survey was carried out in section 4 to select the most influential of the factors discussed in section 3. Section 5 explains the preliminary result while section 6 states the conclusion including future works in continuation of this research.

2. RELATED WORKS

Björneborn (2008) highlighted in his study of users' information behaviour in the physical library that he observed a pattern in those he interviewed. He explained that the first group performed goal-directed search for materials needed for tasks such as work, studies or exam etc while the other group browsed for enjoyable and pleasurable materials for inspiration and relaxation." [3].

By inference, he categorized goal-directed searches as convergent given the fact that most of the students who performed this search knew what they wanted to get from the library. On the contrary, he categorized enjoyable and pleasurable browsing as being divergent in nature. However, we must reiterate that in academic settings such as universities, goal-directed searches are much more preferable given the discipline and research area of each patron. This goes a long way to explain one of the research objectives which is to understand how most users perform searches in the libraries.

More importantly, researchers have highlighted the need to help patrons in the decision making process while selecting books in the library through the use of recommender systems. This simplifies the process of decision making when users are presented with many useful options [19].

This is an information system component that seeks to predict the likely item preferred by a user using a recommendation model.

Recommendation models can be constructed from the characteristics of the borrowed books in the transaction history logs in the library database or given, the user's profile on social media [20].

3 INFLUENTIAL FACTORS THAT AFFECT BOOK SELECTION IN LIBRARIES

Going by the review of past works and literatures in this research, it is important to emphasize the significance of understanding factors that influence users' search patterns as explained in section 1. A good comprehension of these factors will help in properly designing an improved library information service which will reduce the effects of information overload and fatigue. Although, the itemized list is not exhaustive, the factors presented are suitable enough as they tend to overlap when further defined.

3.1 Difficulty or Expertise Level

The difficulty or expertise level is a very important factor as recognized in this paper. It tends to categorize books on the shelf into groups such as beginner, intermediate and expert. The terms for classification are unbounded and could also be low, medium and high etc. Generally, it's believed that the best way to improve one's level of reading skills is to read. Secondly, students are believed to make remarkable gains in reading effort when the material studied is close to their instructional or reading capacity. At this pace, the material is perceived to be neither easy nor difficult but appropriate [6].

Over the years, an NGO, MetaMetric created Lexile® Framework to measure people's reading ability. It was a systematic approach to reading which examines the reading skills of the reader ensuring an unbiased standard of comparison between the text and its readers. This Framework contains both the Lexile measure and scale. The former is a score for either a person's reading ability or the text difficulty preceded by "L" (for example 550L). This framework also features a Lexile scale which has readings for both starters and experts between values less than 200L and values greater than 1700L [7]. Although, MetaMetric's product was being criticized by Prof. Stephen Krashen of the University of Southern California in his article, "The Lexile framework: Unnecessary and Potentially Harmful", it was widely believed that the odds identified doesn't justify abandoning the entire framework. The figure below summarizes the framework.

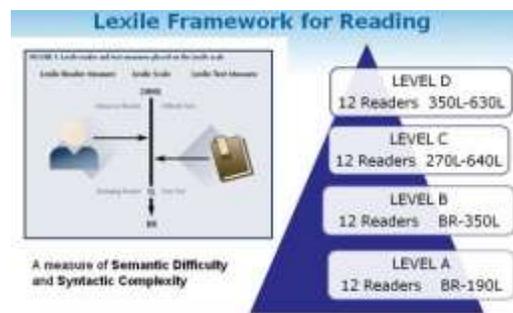


Figure 1: The Lexiles Reading Framework

3.2 Peer Pressure

Students' ability to independently base their studies on self-selected reading during a career build-up is a very important skill for growth

and a demonstration of their keen interest for success on that path.

However, challenges such as competition amongst his/her peers, limited job opportunities, scarcity of materials etc. could limit him to carefully select materials from library repositories taking a cue from his immediate environment especially his peers. Chris [8] sighted fourteen major tactics for book selection by students emphasizing peer pressure in six of these tactics namely:

- Talking to a friend
- Seeing someone else's reading
- Talking to a teacher or librarian
- Using a book club list
- Receiving a book as a present
- Working on a school unit such as poetry, mythology etc.

Bogel (2011) in his survey of 4182 respondents sought to understand the idea of shared reading which was mainly about book selection based on recommendation from friends, family members, public or school librarian or other adults. The result from his study was stunning as recommendation from friends stood at 81.6% while cumulative recommendation from school or public librarians was between 3 to 6%. Although, this doesn't mean other factors influencing borrowing from library collection are ineffective, it only emphasizes the importance of social interaction with peers as a motivating factor to identify not just what to read but why these books are borrowed [9].

3.3 Cover Art

The idea of borrowing a book having sighted its cover might sound unreasonable but studies have revealed that visual effects on attractive cover arts of books create a book-appeal sort of feeling in patrons during their visit to the library. Kies (1995) examined the effect of cover art on teens, booksellers, teachers, librarians and patrons in general and concluded in his study that modifying the cover arts in coming editions of selected book samples need to be current and in tune with the future to be appealing to the public.

A recent study by Bogel (2011) also confirms Kies assertion whereby young readers were interested more in books with visual appeal such as interesting cover or illustrative contents.

Furthermore, Moss and Hendershot (2002) while analyzing borrowing patterns of non-fiction trade books by sixth grade students discovered some motivators which influenced their decision to borrow these materials. Asides curiosity about

topic and patron's personal connection with the book, its visual feature was also a motivating factor that contributed in the book selection process.

You will agree that this has affected the interior décor of libraries where books are arranged on attractive stands with their cover arts noticeable in the library lobby.

3.4 Author's Personality and Writing Style.

An author's personality is defined by his/her choice of words, fluency and voice which are presented in written form. This is the author's brand that defines his personality. In effect, a writing style is an art of dressing up a written text to suite a unique context, audience or purpose [10]. In the same vein, Kathleen posits that authors must choose their words and sentence structures carefully to achieve the desired effect and carry the audience along ensuring there's flow of idea from the beginning to the end.

Although, Robinson (1985) has a different view from Kathleen with regards to an author's writing style being a pointer to the author's personality, both researchers agree that the former consists of nothing but a set of verbal elements and concrete nouns to depict certain kinds of vocabulary, sentence structure and imagery [11].

In essence, to select appropriate materials from the library collections, students mostly in the Arts discipline, might have specific authors in mind [9] given their unique communication skills via writing. Chris (2012) emphasized that the tactic, "following an author" was the most popular strategy of book selection by students in their research because authors had peculiar motivators as their guiding principles for writing. Examples are:

- a gripping opening
- an engaging cover
- fairly short sentences
- a recognizable and contemporary setting etc.

Therefore, authors who can communicate effectively, painting the appropriate pictures in the minds of their readers will attract patrons' attention to their books for both purposes of learning and leisure.

3.5 Relevance Rank

In the perspective of the patron, this is a measure of how helpful the material borrowed is and it is highly influenced by peer review and user rating on

popular book sites like Amazon or Goodreads. It is also important to note that materials recommended by peers, lecturers or supervisors in teaching or discussion sessions prove to be appealing and very useful for patrons when they borrow them.

Relevance rank is also a measure of the correctness of the response given to a search query by an indexed page. When you have many query matches after a search, the search engine must rank the results based on their relevance rank or scores. Therefore, we define relevance ranking as an attempt to measure how closely a web page or entry fits the search terms [12].

3.6 Flagging

This is a phenomenon that highlights the level of importance, sensitivity or rareness of an item. An important application of flagging is its use by the Federal Bureau of Investigation, FBI in the USA. Checking out some flagged books in public libraries, online book stores or websites might cause the patron to be on their watch list [13].

3.7 Autograph

This is a practice by notable personalities whereby they append their signature to any items presented to them by their admirers or fans. In the perspective of academic world and library science, autograph otherwise called Book Signing was defined by Wikipedia as, “a practice of whereby an author appends his signature to the title page of a book.”

It’s an event, occasionally held at a bookstore or library where by the author presents himself to readers of his book to append his signature to their copies. It’s a popular practise as collectors crave for books signed by the author because this increases the book’s value. The importance of autographing is that authors and bookstores indirectly promote books for high sales.

Furthermore, we must bear in mind that no matter how impracticable this may seem, the electronic autographing of library books in the web 2.0 or 3.0 era by renowned scholars or lecturers of a particular institution would eventually raise interesting patterns in students’ attitude to reading and borrowing in the library. The overall effect of this is that students will learn at a faster pace as they know that their lecturers or supervisors have certified same materials as valuable.

3.8 Sales Publicity and Popularity.

The “Tim Ferris Effect” [14] is a phenomenon that occurs rarely but gives aspiring authors the will to succeed, gain popularity for their books and increase sales publicity. It’s an idea that addresses the huge potential behind activities that equip the authors with the opportunity to identify their audience, carve a niche to understand them better and thrill them passionately with their style of communication.

It’s important to state that book attributes such as popularity and sales publicity go together as increase in one causes an increase in the other and vice versa. For instance, if a book gets lots of sales publicity then the book becomes popular, hence the chances of borrowing such a book from the library will increase momentarily.

3.9 Shelf Life

According to Wikipedia and Encarta dictionary, Shelf life is defined as the length of time a stored commodity becomes unfit for use. Therefore, the shelf life of a book describes the period during which the content of the book is deemed relevant for contemporary use. However, the advent of EBook, a recent technological innovation, has changed the way in which shelf life is defined.

Catherine (2012) stated that the EBook revolution hinders the shelf life of the existence of the library itself meaning no matter the level of relevance of the library collections, electronic copies of such materials will cause a general decline in the number of patrons visiting the library since the materials can be accessed remotely. This not only endangers the library institution but also put publishers in great dilemma [15].

In order to survive this threat and extend the shelf life of its collections including the library itself as a symbolic institution of learning, the modern library must:

- identify her customers such as casual, researcher, students and
- integrate information technology with its current systems in such a way that it meets the demands of its readers [16].

4 CASE STUDY: UNIVERSITI TECHNOLOGI MALAYSIA, UTM LIBRARY

In order to identify and adopt the most important of the factors discussed in Section 3, a survey instrument was designed and administered to postgraduate students both online and physically in the Faculty of Computing. The questionnaire was pilot tested in order to strengthen the survey instrument. The survey was carried out to examine the most influential factor(s) affecting book selection in the Faculty of Computing among postgraduate student during their visit to UTM library. During the exercise, a total of 50 responses were collected and analyzed as shown in Table 1.

Table 1: Distribution of Respondents

Program	Sex		Total
	Female	Male	
Doctorate	6	9	15
Masters	15	20	35
Total	21	29	50

5. RESULT AND ANALYSIS

It was discovered that two factors namely, (a) relevance of the material and (b) influence of peer pressure on book borrowing were most effective as seen in figure 3. A very important phenomenon in improving library book selection services is leveraging on the recommendations of existing user reviews. These could come in the form of complements or criticisms by experts who have read the books and/or ranking books on a scale of 1 to 5 or 1 to 10. This method [18] was employed extensively as seen on popular book selling sites such as Amazon and Goodreads in their recommendation / review section where the number of stars (5 stars, 4 stars etc) represents a measure of the book’s relevance while total number of people who chose a particular star signifies the extent of influence of peer pressure on buying and borrowing of such books. Both sites combined these weights to determine the average rating of every book sold or borrowed.

	ONE_STAR	TWO_STAR	THREE_STAR	FOUR_STAR	FIVE_STAR	TOTAL_REVIEW	AVG_RATE
1	4	2	2	4	8	20	3.5
2	0	0	1	1	1	3	4

$$[(1*4) + (2*2) + (3*2) + (4*4) + (5*8)] / 20 = 3.5 \rightarrow \text{AVG_RATE}$$

Figure 2: Computation of book rating by Amazon & Good-reads

This phenomenon to a great extent was reflected while analyzing the survey result as respondents voted relevance of the books and effect of peer pressure as the most influential factors when performing goal-directed searches in the library.

The result is summarized in figure 3.

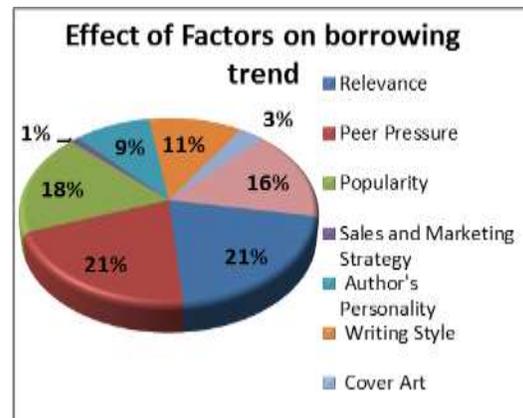


Figure 3: Influential factors affecting book selection in UTM Library

6 CONCLUSION

Having identified the influential factors, it is important to note that the ultimate objectives of studying these factors are to enhance both user experience and the quality of interaction with library users when they access the library information system. The next phase of this research

is to employ a data mining technique that will use the identified factor(s) along with transaction logs of books borrowed by students to provide recommendation of better books when the library information system is put to use. To achieve this, mining tools that can automatically analyze these data in huge databases for valuable information will be exploited [17].

In conclusion, the researchers were able to identify how patrons performed book searches which are mainly goal-directed when they visited the library. Also the paper discussed factors that could aid improvement of book selection services to users and finally select the most influential of these factors which would be implemented in the design of the improved book selection service to reduce fatigue and information overload when patrons request for use of such services in the future.

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