

Chapter 9

Resource Discovery Tools: Supporting Serendipity

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ABSTRACT

Serendipity, the accidental discovery of something useful, plays an important role in discovery and the acquisition of new knowledge. The process and role of serendipity varies across disciplines. As library collections have become increasingly digital faculty lament the loss of serendipity of browsing library stacks. Resource discovery tools may have features that support serendipity as part of information seeking. A comparison of four commercial Web-scale discovery tools, Online Computer Library Center (OCLC) WorldCat® Local¹, Serials Solution²®, Summon³™, ExLibris⁴® Primo Central⁵™, and EBSCO Discovery Services (EDS)⁶™, links product features to characteristics that support serendipitous discovery. However, having such features is only part of the equation. Educators need to include serendipity in discussions about the research process. Future research opportunities include determining whether serendipity can be encouraged, evaluating its occurrence in the web scale environment, and studying serendipity in relation to research instruction.

INTRODUCTION

What is serendipity? A common thread of all discussions is the perception that accident creates an opportunity. Observation and research show that serendipity plays a role in discovery across

many disciplines, and may be a manifestation and/or a trait of creative research. Although these serendipitous discoveries can be significant in original thinking and advancement in different fields, serendipity is both lauded and condemned as a research strategy. Serendipity is also difficult to quantify. However, studies of user behavior positively support the role of serendipitous

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discovery as part of the research process. If we recognize that serendipity plays an important role, then we should ask how resource discovery tools can foster meaningful serendipitous discovery. Do some tools promote a discovery environment that encourages the searcher to be creative, to be open to accidental discovery?

The mission of this chapter is to explore whether some characteristics of commercial web scale discovery products may enhance opportunities for meaningful serendipitous discovery. To this end, this chapter will:

- Present comments in the literature relating to serendipity and discovery
- Discuss recent and current studies in searching behavior that recognize serendipity in the search process
- Using published articles and promotional materials, compare four commercial web scale discovery products with respect to features that support serendipity
- Suggest opportunities for research and evaluation of resource discovery tools with respect to users, search behaviors, and serendipity.

A FIELD DESCRIPTION OF SERENDIPITY

“Serendipity [noun]: the occurrence and development of events by chance in a happy or beneficial way” (Stevenson, 2010). Merton and Barber (2004) describe Horace Walpole’s creation of the word “serendipity.” Key to Walpole’s coinage of the term was accident, “sagacity” (Merton & Barber, 2004, p.2), and discovery of something useful that was previously unsought. Since 1754 when Walpole coined the term, serendipity has proven difficult to define and quantify. However, researchers know serendipity when they encounter it (McBirnle, 2008). Based on author accounts of

historic discoveries, information seeking strategies, and their own experiences, serendipity is:

- Accidental, random, unpredictable (McBirnle, 2008; Hoeflich, 2007; Hoffman, 2005)
- Elusive (McBirnle, 2008; Foster and Ford, 2003)
- Positive, exciting, fulfilling (McBirnle, 2008; Hoeflich, 2007; Hoffman, 2005)
- A rare, but regular, occurrence (McBirnle, 2008).

In her studies of information seeking behavior, McBirnle (2008) notes that serendipity can be an active occurrence (a “happening upon”; p.607) or a passive occurrence (a “happening”; p.607).-

“Serendipity is fundamental to all science, especially the most creative and important” (Friedel, 2001, p. 37). In their literature review, Foster and Ford (2003) demonstrate that serendipity is fundamental not only to scientific research, but to social sciences and humanities research, and artistic endeavors. Accidental discovery presents new information that changes perspective and courses of action (Johnson, 2010; Guha, 2009; McBirnle, 2008). Studies of information seeking behavior document that serendipity stimulates creativity by illustrating new connections, connections that were not consciously anticipated by the researcher. Foster and Ford (2003) note that serendipitous discovery is especially important across different disciplines. Erdelez (1999) also describes serendipity as leading to opportunities for “cross-pollination” (Erdelez, 1999, p.4) of concepts. Accidental discovery in information seeking supports creative thinking by fostering novel connections and frameworks (Nutefall & Ryder, 2010). Researchers tend to discount serendipity because it is not viewed as a formal search strategy (Erdelez, 1999; Liestman, 1992). However, recent studies emphasize that accidental discovery of information is a key piece of information research (Erdelez & Makri, 2011).

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