As someone who had been taught the art of the reference interview by Cole himself, I assumed that this book would be targeted at reference librarians; however, Cole makes it clear that his target audience is system designers. Still, the book is thought-provoking and its findings will influence my work as a librarian who supports health science researchers.

Cole’s **Information Need** addresses the underlying mental processes involved as people move from the first unspoken disquiet of an emerging information need through to the early steps of exploration and, ultimately, to the resolution of the need through knowledge formation. In the course of his study, Cole builds on the rich legacy of theorists in the fields of information science, cognitive psychology and evolutionary psychology.

His main thesis is that the information need remains constant throughout the search process. According to Cole, the underlying need is a fixed psychological entity, although the user’s sense of the need and the behaviours that are the external manifestation of that need will change over time. Indeed, Cole argues that information need is one of the things that make us truly human. Drawing from evolutionary psychology (which focuses on questions such as "how does a person recognize a gap or change in the social or physical environment which sets off the process leading to adaptation?"), Cole argues that humans distinguished themselves from Neanderthals in part by developing the neurological substrates for increasingly abstract thinking, including information need, and this conferred an evolutionary advantage.

This book provides an accessible refresher on some of the major theoretical thinkers in the field: Shannon's theory of communication of information (c. 1949), Taylor's question negotiation (c. 1968), Bates' berry picking (c. 1989), Kulthau's six stages of the information search process (c. 1991) and Dervin's sense making (c. 1992). New to me, Cole also covered Minsky's frame theory (c. 1975) and Donald's evolutionary psychology on the four cultures of human thinking and reasoning (c. 1991). For the most part, Cole’s presentation of theoretical material is quite readable, although I did resort to Minsky's original work on frame theory and found it easier to understand than Cole's description of it.

As far as the framework of the book is concerned, Part I consists of seven chapters, the first six of which lay the groundwork for Chapter Seven in which the theory of information need is presented. Part II addresses how the information need works at various stages of inquiry. By way of illustration, Cole very successfully uses examples drawn from the experiences of graduate students as they come to terms with their
thesis topics. Part III addresses the application of the theory of information need to information system design. And, finally, Part IV is a particularly strong final chapter that pulls together the many elements explored throughout the book into a succinct, yet focused and fully instantiated understanding of information need, to use Cole’s language.

According to Cole, information science investigates the human side of information need and use, while computer science focuses on the externalized aspects: commands and answer seeking. As a result, Cole argues that the existing search systems engineered by computer scientists are ill-suited to the early stages of information need but rather are geared toward the more mundane tasks of known-item searching.

In this context, it is Cole’s intent to influence system design. He observes that in the early stages of satisfying an information need, the need cannot yet be articulated or translated into viable search commands. Therefore, in order to be useful at these early pre-focus stages of inquiry, information retrieval systems must be intuitive and become attached or integral to knowledge formulation.

So, could an information system developer skip directly to Part III of the book and build a more intuitive search engine? No. While entitled "Application of the theory of information need to information system design", this section is less than 20 pages long and centres on two examples of intuitive systems: Vannevar Bush’s Memex and Cole’s own Astrolabe system.

Throughout, the book is rich with way-finding features. When introducing a concept, Cole is clear about where in the text that notion will be addressed in more detail. Milestones are clearly labeled. For instance, at the end of Chapter Six, he states "we have come to the heart of the book." We know in advance how many propositions he will make. The main thesis is labeled as such. The text is also thoroughly referenced, allowing readers the option to explore areas of interest in more detail. But his text stands alone: there are no footnotes; everything is on the page. Overall, this is a very helpful approach to a theoretical work that could otherwise appear convoluted.

Indeed, I found the book very readable. Its limitations are largely mechanical. Some of the examples seemed trivial and did not deepen my understanding of the concepts they were meant to illustrate. The book is rich in figures, and Cole does an excellent job of using devices throughout the book: like a four-pronged symbol that represents the interface between the user and the environment. He extends and evolves the understanding of what this symbol represents as we go along. However, the execution of the figures is weak. They are boxed in and smaller than necessary, rendering several of them illegible on the iPad (for example, Figure 7.1).

This book belongs in the collection of any academic library supporting an MLIS program and, ideally, in any library supporting a computer science program. It would be well suited on the shelf or e-reader of reference librarians with a more academic bent. And,
as Wilson suggests in his review: "this book will be required reading for anyone studying information behaviour, at any level."

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Works Cited: