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In a world with increasing access to raw data, recommender systems can pare down information to help people make choices on a variety of subjects with greater ease. Libraries contain vast amounts of information and use classification schemes to sort it. However, fiction classification is a continuing issue in libraries. This is especially true in academic libraries where fiction might be used for recreational or scholarly purposes. In this paper, the idea that an academic library recommender system might solve some of the problems of fiction classification is discussed.

A qualitative evaluation is performed on six book recommender systems. Recommendations given by each system for a single novel are analyzed based upon information gathered from a close reading, book reviews, formal critiques, academic papers, and university syllabi. It is hoped that this study will be of use to academic librarians and creators of recommender systems.

Headings:

Fiction in libraries

Recommender systems (information filtering)

THERE'S SCIENCE IN MY FICTION! AND OTHER TROUBLES:
HOW A RECOMMENDER SYSTEM CAN HELP THE ACADEMIC LIBRARY

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Introduction

A number of articles on recommender systems start by explaining that recommender systems are needed in the first place because of information overload (Ekstrand, Riedel & Konstan, 2011; Lam, Frankowski, & Riedl, 2006; Middleton, Shadbolt, & De Roure, 2003). A good recommender system can pare down the volume of information available to help a person make a decision with greater efficiency and greater accuracy. Recommender systems are used in a variety of circumstances from choosing what movies to watch to what bike to buy, and they appear in our lives in an increasing number of ways. As Ekstrand et al. (2011) point out, recommendations are no longer limited to friends and family, the internet has made it possible for strangers across the globe to weigh in on personal decision making (p. 83).

In their article “Learning from Our Online Neighbors”, Fichter and Wisniewski (2011) note that users expect a library’s website to work like Google or Amazon.com (p.54). They look for a prevalent search box, easy-to-use interface, and, in the case of Amazon.com, a way to get recommendations. And indeed, many libraries employ recommender systems in their online catalogs. Recommendations are especially common in public libraries where readers’ advisory services have long been important. Academic libraries do not have the same history of readers’ advisory, however, and recommendations are less common for them.

In this paper, I perform a qualitative evaluation on book recommender systems for the academic library. My focus is on fiction. However, any recommender system for an

academic library would need to include non-fiction, as well. It should also be noted that when I examine how fiction recommendations work, I am not looking at it only from a recreational reading perspective. In a university library, fiction recommendations should also be based on scholarly pursuits.

The purpose of this study is to help academic librarians in considering whether or not to put a recommender system into their OPAC (Online Public Access Catalog), as well as influence creators of recommender systems to think about how a system unique to academic libraries might be built.

This paper is divided into seven main parts. In the literature review, I look at fiction in academic libraries, types of recommender systems, and the issue of privacy. I then briefly explain my methodology. Next, I take a close look at the novel *A Whistling Woman* by the renowned British author A.S. Byatt, using book reviews, criticisms, academic papers, and the like. *A Whistling Woman* is run through six book recommender systems and an analysis is given on the results. I then discuss the limitations of this paper and formulate an idea on how a continuation of the study might be implemented. In conclusion, I speculate about what a future academic library recommender system might look like and what duties it might be able to perform.

Literature Review

This literature review is divided into four parts. First, I look at readers' advisory services, fiction classification and humanities scholarship in the academic library. Second, I give an overview of recommender systems. Third, I discuss the problem of privacy for both libraries and recommender systems. Finally, I give a brief analysis of the overall review.

Fiction and Scholarship in the Academic Library

Readers' advisory, that service by which librarians help patrons find their next great read, used to be a standard part of academic libraries, as Elliot (2007), Smith & Young (2008), and Zahau (1993) point out. Indeed, reading "for fun" was actually encouraged (Zahau, 1993, p.57). By the 1950s, however, this was no longer a popular idea for a variety of reasons, among them being social change (Smith & Young, 2008, p.521). Students were expected to read books only relating to their specific courses. The current resurgence in readers' advisory services at the university level suggests a change in how the academic community views fiction in general.

Works of fiction are slowly becoming accepted as genuine information sources (Beghtol, 1994, p. 7). It is a mistake to think that just because fiction does not follow the principles of a scientific query it has nothing to offer the inquiring mind. Case (2008) puts it as follows:

One of the unfortunate blind spots in the study of information seeking has been the artificial distinction between "entertainment" and "information". It is as if the two had nothing to do with one another. And yet these two concepts are more likely on a kind of continuum, with some sensory input being "purely" enjoyable, other input being "purely" informative, and much of what we encounter in everyday life falling somewhere between the two extremes (p. 108).

Case further notes that many university students choose to major in subjects which are both practical and pleasurable, like literature, for instance (2008, p. 112). University libraries must meet their informational needs, just as assuredly as the needs of students in purely pragmatic courses (Case, 2008, p. 113).

Ross (1999) focuses on the information process in incidental learning, in particular how people gain understanding and knowledge through the books they read in

leisure. The readers she interviewed for the study believed fiction helped them with a variety of problems in their daily lives.

Beghtol (1994) discusses how interest in fiction classification has been a popular topic for many years (p. 2). She notes that people require access to fiction for both recreational and academic purposes (Beghtol, 1994, p.3).

Anat Vernitski (2007) is particularly concerned with ways of organizing fiction to support scholarly research in the humanities. She points out that there is currently no way to classify fiction through intertextual means. According to the *Oxford English Dictionary*, intertextuality can be defined as “[t]he need for one text to be read in the light of its allusions to and differences from the content or structures of other texts” (2011). As intertextuality is such an important part of literary studies, Vernitski believes it should have its own system of classification (2007, p. 46).

In her 1995 article about the OCLC/LC Fiction Project, Nancy Down discusses how intertextuality can change how a person appreciates a work of fiction. Down briefly examines how an understanding of *Foe* by J.M. Coetzee and *Friday* by Michel Tournier, both of which are based on aspects of Daniel Defoe’s *Robinson Crusoe*, relies on previous knowledge of the original novel (2008, p. 68). She notes that *Foe* and *Friday* have, in turn, changed her perception of *Robinson Crusoe* (Down, 2008, p. 68).

Ed Finn, in his article about the social life of David Foster Wallace’s *Infinite Jest*, looks at how customer reviews on Amazon.com link *Infinite Jest* to other works such as *Hamlet* (2011, p. 19). There are many examples of these types of connections which help the reader gain a greater understanding of a story. Finn writes:

If Wallace the literary figure lives on, growing and changing, in these book reviews, shadows of Shakespeare, Pynchon and Joyce thrive with him. As literary

afterlives flourish, they begin to merge together into new kinds of transhistorical lists: the canon, the syllabus and the homage. *Ulysses*, as Joyce intended, will always be read with a copy of *The Odyssey* on the shelf, just as *White Teeth*¹ will never leave *Howard's End* entirely behind. (2011, p. 24).

It becomes clear that this way of reading and understanding fiction must be accounted for by a library, especially an academic library.

Saarti (1999) discusses the problems inherent in indexing fiction. One issue is the interpretation of the text by the indexer (Saarti, 1999, p. 87). Beghtol (1994) echoes this sentiment when she writes, "In a way, every reader reads a different book" (p. 125).

Another problem is the multilayers of meaning within a novel (Saarti, 1999, p. 88).

Saarti also mentions the difficulty of indexing a work of fiction that includes real people and events (1999, p. 88).

Bell (1991) writes about these same problems specifically in reference to indexing the novels of A.S. Byatt. She notes that there is so much going on in these books that it is hard to pin them down for indexing purposes. "Fictional works contain very much more than mere information, the usual quarry of indexers", says Bell (1991, p. 252).

Hayes (2001) discusses the difficulties of cataloging fiction due to the multitude of subjects which can be found in a single work. Believing that an academic library would have more varied works of fiction than a public library, she conducted her research on whether or not popular criticism of a work could be used to promote fiction access at Columbia University (Hayes, 2001, p. 78). Hayes concludes that it is better to use popular criticism than formal literary criticism when creating subject headings, because it is not easy to pluck definable topics from the more formal critiques (2001, p. 92).

¹ Finn perhaps meant to link Zadie Smith's *On Beauty*, instead of *White Teeth*, with *Howard's End*. *On Beauty* is a modern retelling of Forster's classic.

Buchanan et al. (2005) write that scholars in the humanities tend to use the library more than other academic departments (p. 219). Chaining, or employing citations to find other works on a particular subject, is a popular method for doing research in the humanities (Buchanan et al., 2005, p. 219). Vernitski (2007, p. 46) and Barrett (2005, p.327) also write about the importance of chaining . This does suggest that a different classification system might be of use to humanities scholars.

Barrett discusses browsing as another way that researchers in the humanities find new materials (2005, p. 326). The popularity of browsing can certainly be seen in how scholars in the humanities at Syracuse University reacted (“with fury”) when the library threatened to store a portion of its print collection and focus instead on its electronic collection (Howard, 2009). Needless to say, professors were not happy at the prospect that the scope of their browsing would be reduced. Barrett maintains that humanities scholars are becoming more comfortable with technology (2005, p. 328), a phenomenon which can easily be seen in the growing interest in digital humanities, but Buchanan et al. write that in general these scholars do not like to browse online (2005, p. 224).

The popularity of browsing academic library shelves stems from the idea that it will lead to serendipitous discovery. Serendipity, according to the *Oxford English Dictionary*, is “[t]he faculty of making happy and unexpected discoveries by accident” (2011). In the context of browsing in an academic library, it would be serendipitous if a scholar came across something that unexpectedly aided her research. In his article “The Myth of Browsing”, Barclay explains why this is so unlikely to happen: “[A] single book can sit in only one place in the library regardless of how many subjects it may encompass” (2010). This is the peculiar problem of the fiction book whose subjects may

include many fields of study. Barclay insists that technology has made it easier to search the electronic collection than the physical stacks. This suggests that those who do not like to browse online should probably learn to love it, or at least accept it. Barclay concludes, “Each academic library, each campus, will need to find the right mixture and adjust it as technology and scholarship evolve” (2010).

Recommender Systems

At their most basic, recommender systems sort through a varying amount of data to make recommendations to users by employing a specific algorithm. Amazon.com and Netflix (<http://movies.netflix.com/>) are perhaps the two most famous recommender systems, but there are many types which can perform a wide variety of tasks. I briefly review types of recommender systems and some of the problems that they face. I also take a quick look at two systems that have been specially created for libraries outside of the United States.

Content-based recommender systems are those which make a recommendation based on the item itself and the user’s profile (Pazzani & Billsus, 2007, p. 325). A profile typically consists of what the user likes and dislikes, as well as knowledge of how the user interacts with the system (Pazzani & Billsus, 2007, p. 328). If an item does not have enough description or content, however, the content-based recommender system cannot work properly. It is content information, not user information, which is vital to the system.

Pazzani & Billsus (2007) explain content-based recommender systems by using the example of a system which helps a user choose a restaurant. In this example, the content of the restaurant is the type of food it serves, i.e. Italian, Indian, or Greek.

Netflix makes recommendations based on content, although, as will be discussed next, it also uses collaborative filtering techniques. Netflix members can indicate their likes and dislikes on the “Taste Preferences” pages (<http://movies.netflix.com/TastePreferences>) and recommendations of movies with specific attributes will be concocted. For example, a user might indicate that she likes dark films and also dramas, so Netflix will create recommendations of movies which are “dark dramas”. It is interesting to note here that Netflix does not necessarily think that the user might actually like these recommendations, they are just a basic match of what a user has indicated she likes in a movie.

Collaborative filtering recommender systems, the type of system used by Amazon.com, makes recommendations based on what users with similar tastes have enjoyed (Ekstrand et al., 2011, p. 83; Schafer et al., 2007, p. 291). As the success of Amazon.com implies, this is a very popular and easy-to-use system. There are two main problems with the collaborative filtering recommender system, however. First, if a product is new to the system, there are not enough reviews about it to recommend it. Second, if a person is new to the system, then the system does not yet know what the person likes or dislikes, and therefore cannot give an accurate recommendation. These two difficulties are often referred to as “cold-start problems” (Ekstrand et al., 2011, p. 129).

As mentioned above, Netflix also uses collaborative filtering techniques. Users are encouraged to rate movies and television shows, both those they like and those they dislike. Netflix matches these ratings to produce personalized recommendations.

CiteULike (<http://www.citeulike.org/>) is an example of a collaborative filtering system that is used for research purposes. Although the main purpose of the site is to help users organize their citations, recommendations for other research papers are also made. CiteULike provides recommendations based on the documents a user has accumulated, much the way Amazon.com will create recommendations from a user's shopping cart (Ekstrand, Kannan, Stemper, Butler, Konstan, & Riedl, 2010).

TechLens also uses collaborative filtering methods to produce recommendations of research papers. It does this by using the actual citations of papers that users have added into the system (Ekstrand et al., 2010). As Ekstrand et al. (2010) point out, this way of creating recommendations somewhat reduces the cold-start problem.

Ekstrand et al. (2011) discuss the possibility of serendipitous discovery in a collaborative filtering system: "Serendipity is the ability to recommend items that the user likes but does not expect; a movie, perhaps, that they never would have thought of liking but, once recommended, turned out to be enjoyable" (p. 140). One could make the argument that the mere act of recommendation means that it is not chance and therefore not true serendipity. However, it appears that in the context of a recommender system, the meaning of serendipity has changed.

Schafer et al. (2007) also talk about how collaborative filtering systems can lead to serendipity, but warn that their use can cause a concentration in a specific area which may lead to homogeneity (p. 300). In his blog post "Online Monoculture and the End of the Niche", Slee (2009) discusses how recommender systems in general can cause uniformity. He explains it as follows:

To use a geographical analogy, in Internet World the customers see further, but they are all looking out from the same tall hilltop. In Offline World individual

customers are standing on different, lower, hilltops. They may not see as far individually, but more of the ground is visible to someone. In Internet World, a lot of the ground cannot be seen by anyone because they are all standing on the same big hilltop (Slee, 2009).

If Slee is correct, then serendipity through a recommender system is less a chance discovery of a new idea, than being force-fed a new idea. It is certainly a hazard to keep in mind when using a recommender system.

Adomavicius, Mobasher, Ricci, and Tuzhilin (2011) explain context-aware recommender systems as those that take into account the particular context for which the recommendation is needed (p. 67). Adomavicius et al. suggest four types of contexts to employ for this type of system – physical, social, interaction media, and modal (2011, p. 74). They offer the example of recommending a tourist attraction because there are not a lot of people there on that particular day (Adomavicius et al., 2011, p. 75).

Another example of when a context-aware system might be handy is when picking out a book to take on vacation. So-called beach reads are often chosen because they are typically light-hearted, light on weight, and light on cost. A person might read a very different type of book at home, but the different setting calls for a change. Molly Platt even suggests that the seasons can affect what a person wants to read (2008). Context-aware recommendation systems acknowledge the fact that people are not constant in their likes and dislikes, and that outside factors can greatly influence their desires.

Hybrid recommender systems are, as the name suggests, a combination of more than one recommender system. The hope is that by combining the best aspects of multiple systems, some of the problems, like cold-start, can be eliminated (Burke, 2007, p. 378). Recommender systems can be combined in various ways. Burke (2007)

mentions the “switching hybrid” system that can choose which recommender system is preferable to use at a given time (p. 385). There is also the “feature combination” approach, which uses the features of one recommendation system, with the algorithm of another (Burke, 2007, p. 386). A “cascade hybrid” puts items into a hierarchy, with one recommender system enhancing the choices made by another recommender system (Burke, 2007, p. 389). The hybrid approach has the potential to create improved recommender systems.

Netflix is an example of a hybrid recommender system. As noted above, it employs both collaborative filtering and content-based techniques to produce recommendations. Users benefit from the best aspects of these two models.

In their paper presented at the Latin American Web Conference, Godoy and Amandi (2008) discuss a hybrid recommender system that merges user profiles with social tagging (p. 58). In this system, tags are connected to the interests revealed in the user’s profile (Godoy & Amandi, 2008, p. 61). Godoy and Amanti found that this system gave better recommendations than two that used tagging only (2008, p. 64).

Milicevic, Nanopoulos, and Ivanovic (2010) also believe that social tagging can enhance recommender systems. Folksonomies, which can be thought of as the taxonomy of tags, are “inclusive”, “current”, “non-binary”, and “democratic”, according to Kroski (2005). However, there are a number of problems with them, as well. Folksonomies do not, by their very nature, employ standardized vocabulary which can lead to misspellings and overuse of synonyms causing havoc in the system. Another of the many arguments against using social tagging is that many of the tags are so personalized that they have no

meaning to anyone else. For these reasons, it is imperative that caution be used when incorporating tagging into a recommender system.

BibTip is a recommendation system that is used in libraries in Germany. It collects data by monitoring what patrons view in the library catalog. Because it only keeps track of anonymous usage of the catalog, privacy is, supposedly, not an issue (Mönnich & Spiering, 2008). Mönnich and Spiering (2008) note that the system can be of benefit to library staff for collection management purposes; if a book has few recommendations, then perhaps it is not necessary to keep it. As more libraries begin to use BibTip, data could be shared between them, improving the recommendations (Mönnich & Spiering, 2008).

Liao, Hsu, Cheng, and Chen (2009), discuss a personal ontology-based recommender system to which collaborative filtering capabilities have been applied for use in a library setting. At the writing of their paper, it had been used only at the Library of National Chung Hsing University in Taiwan. As with other collaborative filtering recommender systems, recommendations are made on similarity of taste between two or more users. In this case, the system looks at the users' loan records. The cold start problem is minimized by linking new users to their department; they are given recommendations based on what other people in their field of study are reading (Liao et al., 2009, p. 397). This recommender system, however, has the potential for serious privacy issues.

The Problem of Privacy

Privacy, or more accurately the lack thereof, is a major problem for recommender systems. For the most part, recommender systems, especially collaborative filtering systems, work best when they have detailed information about a user. This is not unexpected, but it does present a problem for libraries. In Western democracies, privacy is an expected and necessary part of library service. The American Library Association states, “Privacy is essential to the exercise of free speech, free thought, and free association” (<http://www.ala.org/>). How, then, can the issue of privacy versus personalization be solved?

Recommendation systems are susceptible to hackers and user information can be compromised. Some organizations are taking steps to eliminate these problems by employing methods such as decentralizing the system so not all user information is stored in a single spot (Ekstrand et al., 2011, p. 148). But no matter how careful recommendation systems are to keep user information private, users with unusual preferences have the potential to be identified because they are the outliers in the system (Ekstrand et al., 2011, p. 148; Schafer et al., 2007, p. 317).

Lam et al. (2006) write that users must believe not only that a recommender system will keep their personal information private, but also that the recommendations are authentic (p. 15). There are three principal ways of breaking a user’s trust – exposure, bias, and sabotage (Lam et al., 2006, p. 15). Exposure, discussed above, occurs when a user’s personal information is unlawfully accessed (Lam et al., 2006, p. 15). Bias refers to deliberately manipulating the system to change a user’s recommendations (Lam et al., 2006, p. 15). Sabotage occurs when the system is made inaccurate to purposefully

give users bad recommendations (Lam et al., 2006, p. 15). These are three real problems which makers of recommender systems must take into account.

Mooney and Roy (1999) believe that content-based recommender systems are best suited for libraries, because, unlike collaborative filtering systems, content-based systems do not need a user's personal information to make a recommendation. Content-based recommenders have the ability to produce recommendations constructed from information about the item alone. Although doing this means recommendations are not personalized and therefore possibly less accurate, they are also less likely to accidentally reveal a user's identity.

Alfred Kobsa (2007) brings up the problem of privacy regulations specific to a country. Not all countries have the same laws concerning privacy on the internet, which can make it hard for recommender systems that are open to global users. Kobsa discusses two ways to handle this problem. First, is the "largest permissible common subset approach", which holds that the recommender system would adhere to the regulations that met the laws of each country involved (Kobsa, 2007, p. 657). Second, is the "different country/regions" approach which has a separate rendition of the system for each country to meet the laws of that country (Kobsa, 2007, p. 657).

Privacy issues are an important complicating factor in a library's adoption of a recommender system.

Analysis

Works of fiction contain a wealth of information. They cannot be easily categorized or pared down to a single subject matter. The standard way to shelve fiction in a library is by author, origin of author, and sometimes by genre, too. Unlike non-

fiction, it is not classified by subject. This makes browsing the fiction section of an academic library very different from browsing, for example, the ancient history section. As Vernitski (2007) suggests, humanities students may be missing out on important connections within fiction because of the current classification standard. Intertextuality needs to be taken into consideration. Byatt herself says about intertextuality,

As a writer I know very well that a text is all the words that are in it, and not only the words, but the other words that precede it, haunt it, and are echoed in it – as Ackroyd echoed Oberon, punning on wild time, or earlier Winterson casually quoted T.S. Eliot on human voices which wake us, and we drown (Byatt, 2000, p. 46).

Recommender systems are a way to easily work through overwhelming amounts of data, and steps can be taken to ensure that the data they collect stays private. As Amazon.com has shown, recommender systems work quite well at recommending books to people. What would a recommender system based on the needs of a humanities scholar look like?

Methodology

This study is a qualitative evaluation of book recommender systems based on the results given for a single work of fiction, *A Whistling Woman* by A.S. Byatt. Before looking at the recommendations each system suggests, I discuss the data I gathered about the novel itself. First, I discuss my own close reading of the novel. Next, I look at the popular criticism which can be found in book reviews. Although I concur with Hayes's (see above) assertion that formal criticism is "too complex" to be used for subject headings, I also give a brief overview of some of the scholarly criticism about A

Whistling Woman, as well as look at academic papers on the subject (2001, p. 92). In addition, I examine university syllabi that include it on their reading lists.

Next, I review six recommendation systems that focus solely on books – What Should I Read Next?, The Reader’s Advisor Online, Goodreads, BookLamp, LibraryThing, and NoveList Plus.

Final analysis of these systems is based on how well the recommendations match with what I discovered about the book. Recommendations should not just focus on enjoyment, but should also make suggestions that will enhance the experience of reading *A Whistling Woman*.

About *A Whistling Woman*

A Whistling Woman is the final book in the Frederica Quartet. It continues the story of Frederica Potter and the rest of the Potter clan, along with a whole host of other interesting characters, including Frederica’s lover computer programmer John Ottokar and his twin Paul-Zag, the scientists Luk Lysgaard-Peacock and Jacqueline Winwar, Vice-Chancellor of the North Yorkshire University Sir Gerard Wijn Nobel, lysergic-acid-dropping psychiatrist Elvet Gander, rabble-rouser Jonty Surtrees, and the charismatic Manichean Josh Lamb/Joshua Ramsden, who sees blood dripping from everything. Julia Corbett and Simon Moffitt, from Byatt’s previous novel *The Game*, are also mentioned briefly.

A Whistling Woman opens with a telling of *Flight North*, a Tolkien-esque story written by Agatha Mond, who shares a house with Frederica. The time is the late 1960s, and Frederica takes a job in London as a television personality on a show called “Through the Looking Glass”, during which she talks with guests on a variety of topics

concerning politics, science, religion, psychology, and literature. In North Yorkshire, the university is planning a Body-Mind conference, while members of the Anti-university – armed with slogans such as “Mao Thought is True Thought” (Byatt, 2004, p. 373²), plan a very different event. Meanwhile, a religious cult builds a commune out on the moors.

I chose this book because it is so rich in ideas. It touches on subjects as diverse as stained glass and bower-birds, Fortran and Snow White. There are discussions of the connection between snails, the Fibonacci spiral and DNA, as well as an underlying theme of the cultural debate between F.R. Leavis and C.P. Snow (Byatt, 2005).

The thoughts and ideas of real people are often mentioned in *A Whistling Woman*, including those of D. H. Lawrence, Noam Chomsky, Doris Lessing, William Blake, George Eliot, and Wittgenstein, to name but a few. Specific works, like *Education and the University* and *Lady Chatterley’s Lover*, are also mentioned. The acknowledgments page lists a number of scientists Byatt turned to for help when composing this work, including Steve Jones, Frances Ashcroft, and Richard Dawkins (WW, p. 429).

Book Reviews

Whether praiseful or damning, all of the book reviews of *A Whistling Woman* seem to agree that it is a book of the intellect, and also that it is near impossible to summarize given the sheer number of characters and plotlines. Merkin (2003) writes that the objective of the entire quartet “is nothing short of tracing the cultural and social revolution of modern-day England” (p. A10). She compares Byatt’s writing to that of George Eliot and Iris Murdoch, and her habit of giving characters unusual names (see above), to that of Trollope and Dickens (Merkin, 2003, p.A10).

² Subsequent citations of *A Whistling Women* will be noted simply as WW with the page number.

Though a much-less-flattering review, Craig's article in *The Times* also compares Byatt to Eliot and Murdoch and shows Tolkien's influence throughout the entirety of the book, not just in Agatha Mond's fantasy story (2002, p. 20). Craig (2002) suggests that the ideal audience for *A Whistling Woman* is people who have already read Steven Pinker, E.O. Wilson, and Richard Dawkins (p. 20). Allardice (2002) refers to Frederica as the 20th century equivalent of Maggie Tulliver, Eliot's protagonist from *The Mill on the Floss* (p. 5). The entirety of the series is similar to works by Proust, Anthony Powell, Doris Lessing, and Philip Roth, writes Turner (2002, p. T03). And Ruth Scurr (2002) compares Byatt, as both author and scholar, to Lawrence Norfolk (p. 6). Allan Massie (2002) in *The Scotsman*, unequivocally states that "A.S. Byatt is the George Eliot of our time", right after wishing that editors had pared down both *A Whistling Woman* and Eliot's *Middlemarch* (p. 6).

Steve Davies (2002), writing for *The Independent*, also wishes an editor has simplified the story (p. 24). He complains that the writing is too intellectual to appeal to the average reader: "[Y]ou have to be jolly clever to grasp the full range of allusion. But even if you are jolly clever, you won't be clever enough" (Davies, 2002, p. 24). "[T]his is a universe in which characters – above all else – think" (Herman, 2002, p. B06). Clark (2002) calls *A Whistling Woman* a "fantasy of intellectual life", too idealized to be real (p. 28). And in her scathing review, Lorraine Adams decries altogether the intellectual bent of the novel, calling Byatt a "melodramatic pedant" (p. 37). But she, too, compares Byatt to Eliot, albeit by stating more than once that no matter how much Byatt pays homage to Eliot, she falls very short of Eliot's greatness (Adams, 2003, p. 37).

The book reviews also focus on the social milieu of the 1960s. MacFarlane (2002) says Byatt “writes[s] history as seen from ground level” (p. 17). The turbulence of the late-Sixties is seen from the point view of 33-year-old Frederica – Cambridge-educated, divorced, and single-mother to a young son – she is, perhaps, not the typical heroine for the time period. Reviewers tend to disagree on whether or not Byatt accurately captures the time period. Turner (2002) believes she did. Sex, drugs, and rock and roll, courtesy of the Beatles, as well as student revolts and “whistling women” are all there (Turner, 2002, p. T03). Davies (2002), however, believes Byatt does the Sixties a disservice by not giving more attention to the Women’s Movement and focusing instead on the violence of the Anti-University and general creepiness of the religious cult (p. 24).

Byatt seems to cultivate genuine fondness and utter contempt alike. Finn points out that “as consumers of criticism, we are trained to accept professional comparisons as valid whether or not they are positive (or legitimated)” (2011, p. 16). Therefore it is important to consider both positive and negative reviews in this study.

Formal Criticism & Academic Papers

In *A.S. Byatt and the Heliotropic Imagination*, Jane Campbell says of *A Whistling Woman*: “The novel is preoccupied with the changing definition of the human...” (2004, p. 248). In this critique, Campbell focuses on the various human groups in the novel, not just the cult, the family, and the university, but also the characters who briefly come together on Frederica’s television show and the other alliances that are made.

Alfer and Edwards de Campos (2010), describe *A Whistling Woman* as a “polyvocal narrative” (p. 64). They examine, among other things, the notion that human beings are both fated by genetics and freed by individual thought, as well as the overall

importance of “narrative in the building of human knowledge” (Alfter & Edwards de Campos, 2010, p. 64, 78).

Jennifer Anne Johnson (2010) discusses the symbolism of song thrushes and snails. In doing so, she links A.S. Byatt to Thomas Hardy, Robert Browning, and Tolkien (Johnson, 2010, p. 69). She also points out that Byatt uses the thrush and the snails to discuss the growing environmental movement in the Sixties (Johnson, 2010, p. 70).

In his article on *A Whistling Woman*, Alistair Brown (2007) references Heisenberg’s uncertainty principle to explain that upon examining Byatt’s ideas, they immediately change in nature, and what should be objective, becomes subjective (p. 59). The article focuses on the dichotomy between mind and body, the subject of the North Yorkshire University’s conference. It is also about the tension between science and literature. Like previous critics, Brown sees a connection between Byatt and George Eliot (2007, p. 61).

Elizabeth Hicks (2010), in her work *The Still Life in the Fiction of A.S. Byatt*, looks at the role of food and artwork in *A Whistling Woman*. Food and food preparation can set the scene for domesticity and sometimes exert a stifling effect on married women (Hicks, 2010, p. 149). But food can also enhance sexual imagery and may be employed in the art of seduction (Hicks, 2010, p. 173-175).

Artists and their work are a common subject in the entirety of the Quartet. Artists mentioned in *A Whistling Woman* include Magritte, Mondrian, Picasso, Vermeer, and Van Gogh. Hicks (2010) notes, “Byatt uses [Vermeer’s] *View of Delft* in the quartet as both a visual and a recurring narrative device (p. 43). The painting is used on Frederica’s

television show and discussed from the point of view of Proust who wrote about it in his own work *In Search of Lost Time* (Hicks, 2010, p. 42).

In her master's paper about the Frederica Quartet, Vaňharová (2009) focuses on the many writers who appear to have influenced Byatt, like George Eliot, or who share similar writing styles, like John Fowles. She also discusses the many allusions to be found in the tetralogy and points out how intertextuality is used in *A Whistling Woman*.

Hee Saumaa (2005) takes it one step further, focusing on the metafictionality of the Quartet (2005, p. 24). Metafiction, i.e. fiction about fiction, can be seen in *A Whistling Woman* in the way Frederica discusses *The Great Gatsby*, for instance (WW, p. 275-277).

Syllabi

A Whistling Woman is on the syllabus for the Countercultures course in the Department of Sociology and Philosophy at the University of Exeter (<http://socialsciences.exeter.ac.uk/sociology/modules/SOC3026/description/>). The course, taught by Professor Andrew Pickering, focuses on the counterculture movement of the Sixties. Students discuss communes, popular culture, the arts, architecture, explorations of consciousness, the antipsychiatry movement, Situationist International, cybernetics, and revolution. In addition to *A Whistling Woman*, the reading list includes Orwell's *Nineteen Eighty-Four*, R.D. Laing's *The Politics of Experience*, and Aldous Huxley's *The Doors of Perception*, among others. It should be noted that Laing is mentioned more than once in *A Whistling Woman* and is even listed as a speaker at the fictional North Yorkshire University's Body-Mind Conference (WW, p. 70, 87).

The course “Tolkien: Medieval and Modern” of the Department of History and the Divinity School at the University of Chicago also puts *A Whistling Woman* on its syllabus (<http://tolkienmedievalandmodern.blogspot.com/p/syllabus.html>). However, students are required to read only the section containing the story *Flight North*. Previous parts of the story from *Babel Tower* are also on the syllabus. The majority of the other books are either by Tolkien or about Tolkien, but *City of God* by St. Augustine, *The Mind of the Maker* by Dorothy L. Sayers, and Ursula K. LeGuin’s essay “The Child and the Shadow” are included on the list, too.

A Whistling Woman is also on the syllabus for a “Writing about Literature” course in the English Department at the University of Illinois at Urbana-Champaign (<http://www.english.illinois.edu/undergraduate/courses/sp10/lit/>). The course focuses on the writings of A.S. Byatt and her sister Margaret Drabble. *The Virgin in the Garden*, *Possession*, and *The Matisse Stories* are the other covered works by Byatt. Drabble’s works for this course include *The Millstone*, *The Middle Ground*, *The Radiant Way*, *The Peppered Moth*, and *The Pattern in the Carpet*.

Analysis

It has become apparent that *A Whistling Woman* cannot be narrowed down to a single subject. The story is crammed full of thoughts on a variety of topics. It is also recognized that there are intertextual aspects to the novel, as can be gleaned from the number of authors and texts mentioned therein. Daphne Merkin, in her New York Times review aptly titled “The Novel as Information Superhighway” writes, “A.S. Byatt has never met an idea – or a symbol or an archetype – she didn’t like” (2003, p. A10). In

short, this “novel of ideas” (Craig, 2002) is so full of information that it would take a good recommender system to sort through it.

Book Recommender Systems

In this section, I review six book recommender systems. It should be noted that I did not log-in to any of the systems when getting recommendations for *A Whistling Woman*. This was to ensure that my own reading preferences did not tamper with the results. I gathered data from What Should I Read Next?, LibraryThing, and NoveList Plus on February 6, 2012. On February 26, I retrieved the data for The Reader’s Advisor Online, Goodreads, and BookLamp. The table below shows the type of system to which each book recommender corresponds – collaborative filtering, content-based, or a hybrid³.

Book Recommender	Collaborative Filtering	Content-based	Hybrid
What Should I Read Next?	✓		
The Reader's Advisor Online		✓	
Goodreads			✓
BookLamp		✓	
LibraryThing			✓
NoveList Plus		✓	

Table 1: Type of Book Recommender

What Should I Read Next?

What Should I Read Next? or WSIRN (<http://whatshouldireadnext.com>) is a database that allows users to simply enter the title, author, or ISBN of a book to get a list of recommendations. Each book has a link to Amazon.com, if users wish to purchase it.

³ Hybrid here refers to any type of hybrid recommender system, not just those which combine collaborative filtering and content-based techniques.

People are encouraged to sign-up and create lists of their favorite books to improve their recommendations. Although this is not required, the database creates recommendations based solely on these user-created book lists. In short, WSIRN is driven by readers' opinions, making it a collaborative filtering system. WSIRN provided a list of 46 recommendations for *A Whistling Woman* (see Appendix A).

The Reader's Advisor Online

The Reader's Advisor Online (<http://www.readersadvisoronline.com>) is just what its name implies – an online database for readers' advisory services. It includes both fiction and non-fiction books. Using the Advanced Search feature, readers can seek their next great book by utilizing a number of options – Full Text, Author, Title, Series, Description, Subject, Year Range, and Reading Interest. Further distinction can be made if it is an award winner, is considered appropriate for a book group, is part of a series, is also a movie, is for young adults, and is fiction or non-fiction. Books can also be found by genre.

The Reader's Advisor Online offers book lists highlighting bestsellers, award winners, and the like from a variety of sources – Amazon.com, *Library Journal*, and *The Millions*, to name but a few. Other services include links to good book blogs and a list of the upcoming publishing dates of books. Ten recommendations for *A Whistling Woman* were given under the theme “Warp and Weave” (see Appendix B). The recommendations are based on the Genrereflecting Advisory series by Linworth Libraries Unlimited. It can be implied, then, that The Reader's Advisor Online is a content-based system.

Goodreads

Goodreads (<http://www.goodreads.com/>) is a social book recommender site.

Once users have created an account, they can “friend” people and their friends’ ratings and reviews of books will appear on the users’ wall. The site also tracks users’ reading habits and can then recommend further reading based on input from members with similar interests. Users can also make booklists, form book groups, and take related quizzes. Those who have over 50 books in their Goodreads collection can apply to become a Goodreads librarian and have the authority to edit records. There is even a book swap system.

In theory, Goodreads most closely mimics the notion of a friend recommending a book. However, the people a user “friends” on Goodreads are not necessarily suggesting books that the user would also like; they are only adding the books in which they themselves have an interest. A user might inadvertently come across a title that she wants to read, but only if the friend has the same taste in literature.

Similar to Netflix, Goodreads members can also choose to indicate what types of books they like to read, such as fantasy or biographies. These will create separate recommendations based on a book’s content. For that reason, Goodreads, like Netflix, is a hybrid system.

As a non-member, only a few recommendations are available for a particular book. A *Whistling Woman* has five recommendations (see Appendix C).

Booklamp

BookLamp (<http://booklamp.org>) is the product of the Book Genome Project (<http://bookgenome.com>). The Book Genome Project analyzes the theme, character and language of a book, which the creators compare to DNA, to help make connections

between the works. These connections are then used to create content-based recommendations in BookLamp.

When I searched for recommendations of *A Whistling Woman* I was offered 36 fiction recommendations which came in a variety of types -- short stories, literary fiction, science fiction and fantasy. In addition, BookLamp claims to have matched *A Whistling Woman* with thirteen non-fiction books (see Appendix D for the complete list of recommendations). However, it must be noted that the system erroneously marked Thomas Hardy's *Tess of the D'Urbervilles* as a non-fiction work. It also added *Red China Blues* by Jan Wong twice.

Each of these recommendations shared at least one of the ten attributes of *A Whistling Woman* that the creators call StoryDNA (see Fig. 1). *The Second Coming of Steve Jobs* by Alan Deutschman, for instance, is connected to *A Whistling Woman* by three points related to academia, education, and conferences.

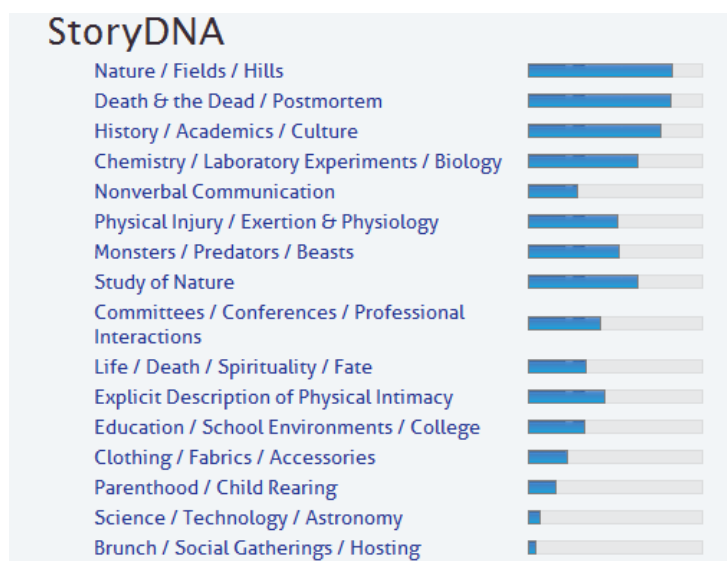


Fig.1. Screenshot of attributes of *A Whistling Woman* from BookLamp

LibraryThing

LibraryThing is a site that allows users to catalog their personal collections for a small fee. As a member, users can create lists, join groups, and even find out related happenings in their community. In addition, there are immediate ways to locate the books by Amazon, WorldCat, local bookstores, etc.

LibraryThing provides recommendations which are open to the public. There are recommendations available for authors and groups, and more than one list of book recommendations. For *A Whistling Woman*, one might look at the “Books with Similar Tags” list, the “Special Sauce Recommendations” list, “Books with Similar Library Subjects and Classifications” list, and so forth. A combined list of recommendations pulls from each of the lists. The combination list is the one I focused on for this paper (see Appendix E). Because there are a number of ways that LibraryThing creates recommendations, including matching what users have in their libraries, it can be thought of as a hybrid system.

One of the main features of LibraryThing is the tagging system. Users may tag books in their collection in any way they choose. These tags can then be used to find other books with the same tag. Figure 2 shows a screengrab of the cloud of the popular tags from *A Whistling Woman*. As can be seen, the fact that it is British/English fiction seems to be the main topic. The tags which really delve into the subject and scholarship of the book, like “counterculture”, “metafiction”, and “Yorkshire”, are rarely used (see Appendix F). There are also a number of tags which are too personal to be meaningful to every user, like “location-den” or “owned but haven’t read” (see Appendix F). Nevertheless, many of the tags can help users to find books on similar subjects. Tim Spalding, founder of

LibraryThing, reveals that he understands the difficulty of classifying fiction when he writes, “Literary fiction isn’t ‘about’ what it’s about in quite the same way that non-fiction is” (2011). In other words, tags tend to be messy when it comes to fictional works.



Fig.2. Screenshot of tags associated with *A Whistling Woman* from LibraryThing

LibraryThing can be used directly within a library catalog. Called LibraryThing for Libraries (<http://www.librarything.com/forlibraries>), it brings all the above-mentioned perks of LibraryThing to a library’s OPAC. In addition, users can browse shelves online and view a map of the library to determine where a book can be found. Recommendations and tags appear alongside Library of Congress Subject Headings on a book’s particular page. There are a few academic institutions, like the University of Texas (<http://catalog.lib.utexas.edu/>), that use LibraryThing for Libraries in their OPAC.

NoveList Plus

Of all the book recommender systems discussed in this paper, NoveList Plus (<http://www.ebscohost.com/novelist/our-products/novelist-plus>) is the only one that does not offer recommendations freely to the public. It is a readers’ advisory tool that works either as part of a library’s OPAC, as it does at the Chapel Hill Public Library (<http://chapelhillpubliclibrary.org/>), or as a separate electronic database offered as part of a library’s electronic resources, as it does at the University of North Carolina at Chapel Hill (<http://www.lib.unc.edu/>).

The screenshot shows a vertical list of attributes for the book 'A Whistling Woman' on the NoveList Plus platform. Each attribute is preceded by an unchecked checkbox. The attributes are organized into several categories: Genre, Storyline, Pace, Tone, Writing Style, Subject, and Location.

- Genre**
 - ☐ Literary fiction
 - ☐ Psychological fiction
- Storyline**
 - ☐ Character-driven
- Pace**
 - ☐ Relaxed pace
- Tone**
 - ☐ Atmospheric
 - ☐ Melancholy
 - ☐ Romantic
 - ☐ Thought-provoking
- Writing Style**
 - ☐ Descriptive
 - ☐ Lyrical
 - ☐ Richly detailed
 - ☐ Stylistically complex
- Subject**
 - ☐ Biological research
 - ☐ Conferences
 - ☐ Cult leaders
 - ☐ Cults
 - ☐ Divorced women
 - ☐ Potter, Frederica
 - ☐ Single mothers
 - ☐ Television personalities
 - ☐ The Sixties (20th century)
 - ☐ Universities and colleges
 - ☐ Women in the television industry
 - ☐ Women television personalities
- Location**
 - ☐ England

Fig.3. Screenshot of attributes of *A Whistling Woman* from NoveList Plus

NoveList Plus offers reading lists, book reviews, author information, genre favorites, and more. In addition to the recommendations for books, (for *A Whistling Woman* see Appendix G), NoveList Plus also gives recommendations for authors, like A.S. Byatt, and recommendations for series, like the Frederica Quartet.

Recommendations are created based on the attributes of a book, concerning genre, pace, tone, and so forth. In other words, it is a content-based system. For the attributes of *A Whistling Woman* see Figure 3. Users can toggle between the attributes to find books

which share specific attributes. So, if, for instance, a user mainly wanted atmospheric novels set in 1960s England, those attributes could be checked and a list of books in that category would be created.

Analysis of Results

It should first be noted that BookLamp will not be considered in this analysis. I deemed its categorization of Hardy's *Tess of the d'Urbervilles* as a non-fiction recommendation too grievous a fault to be ignored. In addition, listing *Red China Blues* twice suggests that there is more than one error in the system. A recommender system must be trustworthy if it is to be used as part of a library system, and, currently, BookLamp is not.

Although I have looked at the various features of each of the recommenders, analysis of the remaining systems is based on how well their recommendations for *A Whistling Woman* match the reviews, criticism, etc. about the novel. To begin, each system, except NoveList Plus, recommended an author mentioned in *A Whistling Woman*. Given the importance of intertextuality in many of the critiques of *A Whistling Woman*, this was considered a must for an academic recommendation. WSIRN recommended works by both D.H. Lawrence and George Eliot. The Reader's Advisor Online recommended a George Eliot novel. Goodreads recommended one Iris Murdoch novel, and LibraryThing recommended a few them. Each of these authors was mentioned in many of the reviews, criticisms, and other works about *A Whistling Woman*. WSRIN is the winner in this category. Since it makes recommendations based only on how people group together books, it suggests that users may have come into contact with the reviews

about *A Whistling Woman*. In addition, being a UK-based system may have something to do with it.

There are only two overlapping recommendations – Iris Murdoch’s *The Green Knight*, recommended by both LibraryThing and Goodreads, and Robert Hicks’s *Widow of the South*, recommended by WSIRN and The Reader’s Advisor Online. LibraryThing is the only system to recommend other Byatt novels. In fact, it recommends the three previous novels in the Frederica Quartet. This seems rather silly and redundant. If any of Byatt’s other novels were to be recommended, I would suggest it be *The Game*, which at least has two characters who appear in *A Whistling Woman*. LibraryThing also recommends a few of Margaret Drabble’s novels, including three which are on the syllabus from the University of Illinois at Urbana-Champaign mentioned above.

With BookLamp no longer a part of the study, WSIRN is the only system to recommend a non-fiction book, although they all include non-fiction as part of their services. *Are You Dave Gorman?* is the anecdotal account of a man named Dave Gorman looking for other people who share his name.

The figure of Elizabeth I is an important symbol in *A Whistling Woman*, and indeed throughout the whole Quartet. *The Lady Elizabeth: A Novel* by Alison Weir, recommended by WSIRN, tells the story of the woman who would become Queen Elizabeth I. The Reader’s Advisor Online offers two recommendations about Elizabethan England, both by George Garrett – *The Succession: A Novel of Elizabeth and James* and *Entered from the Sun: The Murder of Marlowe*.

NoveList Plus is well-suited to readers’ advisory services, which is its main purpose, but there is nothing in particular about it that makes it a good fit for an academic

library. In fact each system, including LibraryThing, seems better suited for a public library given the type of recommendations they offer. One way to change this would to bring in more non-fiction recommendations for fiction books. For *A Whistling Woman*, non-fiction recommendations might include Steven Pinker's *The Blank Slate: The Modern Denial of Human Nature* (Brown, 2007, p. 66) or a book of Van Gogh's artwork. In addition, the subject attributes of NoveList Plus might get more specific about the book and include topics like fire, pregnancy, or snails. This is not to say that readers' advisory services are not important to have in an academic library. As mentioned earlier in the paper, recreational reading is valuable and should be encouraged in an academic institution. However, recommender systems in a university library should also accommodate readers who need a book for academic purposes and should therefore match the reviews, criticism, academic papers, and syllabi which feature the book.

Limitations of the Study

This paper was only a very brief, very basic study of how recommender systems might work in an academic library. Further work on this topic needs to be undertaken. More books should be tested in recommender systems. In particular, because the majority of these systems are based in the United States, American novels should be tested to see if it changes the accuracy of the recommendations. Dilevko and Dali (2003) did a study on how NoveList reacts to translated fiction which should be taken into account. In addition, the six book recommender systems discussed in this study are not the only ones available. Other systems should be tested.

LibraryThing's tagging system has great potential, but was not explored in great detail in this paper. DeZelar-Tiedman (2011) and Rolla (2009) have both written articles on this topic.

In addition to the book reviews, etc. about *A Whistling Woman*, it would be of help to talk to people about the book, especially students and professors, to get their opinion about it and their ideas about suitable recommendations. As Finn (2011), was able to show in his study, reviews on Amazon.com can also cultivate new ideas about a work.

Neither the Bohemian Bookshelf nor Small Demons are recommender systems, but the ideas behind them might be of use for an academic library recommender. The creators of the Bohemian Bookshelf believe that visualization can lead to moments of serendipity (Thudt, Hinrichs, & Carpendale, 2012). They have created various ways of using graphics to stimulate users' imaginations. Small Demons (<http://www.smalldemons.com>) is a company that began in 2011. It links works to the books, people, places, and things that are referenced in them. Unfortunately, it does not yet include *A Whistling Woman*. Although this company provides more information about the innards of a book than would be appropriate for a library, the intertextual aspects of it could be very useful. More about both of these projects should be pursued to help make the ideal academic library recommender system. There are a number of different avenues a continuation of this study could take.

Conclusion

A novel can be comprised of both fictional and non-fictional elements and contain a variety of subjects which makes it hard to definitively classify. Throughout this paper

there have been examples of the difficulty inherent in categorizing fiction. This is especially problematic in an academic library where fiction is valued for recreational and scholarly purposes. Vernitski (2007) has suggested that a new classification system based on intertextuality be implemented in academic libraries for the benefit of humanities scholars. It can be argued, however, that a good recommender system could supply the same results with less trouble. These systems are, after all, in the business of grouping together disparate pieces of data. For a university library, a good recommender system would cater to both recreational and scholarly needs, as well as provide for serendipitous discovery.

Techniques from collaborative filtering, content-based, and context-aware models would be of great use in an academic library's recommender system. If privacy could be ensured, collaborative filtering would provide personalized recommendations for students and scholars. Content-based systems are best for capturing the true essence of a work so that it can be properly matched. A context-aware model would allow users to choose from moment-to-moment if they wanted recommendations for recreational or scholarly pursuits. In short, the ideal academic library recommender system would be a hybrid.

Imagine what a recommender system unique to academic libraries would look like. Built into the library's OPAC, the page for *A Whistling Woman* has an option to view either recreational or scholarly recommendations, though a combination of the two is the default. *At Swim Two Boys* by Jamie O'Neill is offered for its atmospheric tone and character-driven storyline. *Education and the University* by F.R. Leavis is also among the recommendations for its intertextual tie to *A Whistling Woman*, as well as Eliot's *Middlemarch*. There are novels by Iris Murdoch and biographies of Wittgenstein and art

books on Vermeer. Recommendations touch on science, art, philosophy, history, literature, and so on, but users can toggle between them for easier browsing.

Users have the opportunity to contribute to the recommendations themselves. For example, professors can pair the novel with other books on their syllabus. Each recommendation is accompanied by a map of where it is located in the library, as it is done by LibraryThing for Libraries. Library patrons also have the chance to tag *A Whistling Woman*. These tags allow users to browse in more refined subject areas. Overall, this imagined academic library recommender system would provide recreational and scholarly recommendations, both fiction and non-fiction, in such a way as to promote serendipitous discovery for patrons. Through the use of this system, it is believed that academic libraries can better serve the needs of its community.

It is hoped that this qualitative evaluation of recommender systems will prove useful to academic librarians who are thinking about implementing a recommender system in their library's OPAC, as well as for builders of recommender systems who want to create a system that caters specifically to academic libraries.

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Appendix A

Recommendations for *A Whistling Woman* from What Should I Read Next?

Author	Title
Francis Cottam	<i>The Fire Fighter</i>
John Harvey	<i>In A True Light</i>
Rupa Bajwa	<i>The Sari Shop</i>
Laurie Graham	<i>The Unfortunates</i>
Edwidge Danticat	<i>The Dew Breaker</i>
Hilma Wolitzer	<i>The Doctor's Daughter</i>
Alexander Kent	<i>Midshipmen Bolitho books</i>
Jane Gardam	<i>The Flight of the Maidens</i>
Jane Hamilton	<i>When Madeline was Young</i>
Joyce Carol Oates	<i>I'll Take You There</i>
Laura Moriarty	<i>The Center of Everything: A Novel</i>
Christy Brown	<i>My Left Foot</i>
Karen Essex	<i>Leonardo's Swans: A Novel</i>
Allegra Goodman	<i>Intuition</i>
Jeanette Haien	<i>The All of It</i>
Andrea di Robilant	<i>A Venetian Affair: A True Story of Impossible Love in the Eighteenth Century</i>
Kris Radish	<i>The Elegant Gathering of White Snows</i>
Margaret Foster	<i>Lady's Maid</i>
Iain Pears	<i>The Dream of Scipio</i>
Julia Glass	<i>The Whole World Over</i>
Paulette Giles	<i>Enemy Women</i>
Lois McMaster Bujold	<i>The Hallowed Hunt</i>
Judith Merkle Riley	<i>Oracle Glass</i>
Meg Wolitzer	<i>The Wife</i>
Madeleine L'Engle	<i>A Circle of Quiet</i>
Laurie R. King	<i>The Game (Mary Russell novel)</i>
Robert Hicks	<i>Widow of the South</i>
Kate Atkinson	<i>One Good Turn</i>
Jacquelyn Mitchard	<i>Cage of Stars</i>
Kathleen Tessaro	<i>Elegance</i>

Rebecca Wells	<i>Ya-Yas in Bloom</i>
Alison Weir	<i>The Lady Elizabeth: A Novel</i>
D.H. Lawrence	<i>Women in Love</i>
Maeve Binchy	<i>Quentins</i>
Fannie Flagg	<i>Welcome to the World, Baby Girl!!</i>
Dave Gorman & Danny Wallace	<i>Are You Dave Gorman?</i>
Alice Hoffman	<i>The River King</i>
Billie Letts	<i>The Honk and Holler Opening Soon</i>
Per Petterson	<i>Out Stealing Horses</i>
Anne Tyler	<i>The Amateur Marriage</i>
Tracy Chevalier	<i>Falling Angels</i>
Karen Joy Fowler	<i>Jane Austen Book Club</i>
George Eliot	<i>The Mill on the Floss</i>
Kiran Desai	<i>The Inheritance of Loss</i>
Lois McMaster Bujold	<i>Memory (Miles Vorkosigan Adventures)</i>
Anchee Min	<i>Empress Orchid</i>

Appendix B

Recommendations for *A Whistling Woman* from The Reader's Advisor Online

Author	Title
Willa Cather	<i>Shadows on the Rock</i>
Jonathan Ceely	<i>Mina</i>
Susan Dunant	<i>The Birth of Venus</i>
George Eliot	<i>Romola</i>
George Garrett	<i>The Succession: A Novel of Elizabeth and James</i>
George Garrett	<i>Entered from the Sun: The Murder of Marlowe</i>
Robert Hicks	<i>The Widow of the South</i>
Manda Scott	<i>Dreaming the Eagle</i>
Manda Scott	<i>Dreaming the Bull</i>
Mary Lee Settle	<i>The Scapegoat</i>

Appendix C

Recommendations for *A Whistling Woman* from Goodreads

Author	Title
Peter Ackroyd	<i>English Music</i>
David Lodge	<i>Therapy</i>
Iris Murdoch	<i>The Green Knight</i>
Agatha Christie	<i>Murder on Board</i>
Barbara G. Walker	<i>Feminist Fairy Tales</i>

Appendix D

Recommendations for *A Whistling Woman* from BookLamp

Author	Title
Catherynne Valente	<i>The Orphan's Tales: In the Night Garden</i>
Dan Simmons	<i>Prayers to Broken Stones</i>
A.S. Byatt	<i>The Children's Book</i>
Ralph Ellison	<i>Juneteenth</i>
Halldor Laxness	<i>Independent People</i>
David Zindell	<i>The Wild</i>
A.S. Byatt	<i>Little Black Book of Stories</i>
A.S. Byatt	<i>The Biographer's Tale</i>
Terry Brooks	<i>The Sword of Shannara Trilogy</i>
Ida Hattermer-Higgins	<i>The History of History</i>
Terry Brooks	<i>The Sword/Elfstones of Shannara</i>
Jane Smiley	<i>Moo</i>
Justina Robson	<i>Natural History</i>
William F. Russell	<i>More Classics to Read Aloud to Your Children</i>
Diana Abu-Jaber	<i>The Language of Baklava</i>
Paul Quarrington	<i>The Spirit Cabinet</i>
David Zindell	<i>War in Heaven</i>
Catherynne Valente	<i>Palimpsest</i>
Lijia Zhang	<i>Socialism is Great!</i>
Richard Lee Byers	<i>The Ruin</i>
Giles Foden	<i>Ladysmith</i>
Catherynne Valente	<i>The Orphan's Tales: In the Cities of Coin and Spice</i>
Jill Ker Conway	<i>In Her Own Words</i>
Thomas Hardy	<i>Tess of the d'Urbervilles</i>
Jonathan Dee	<i>Palladio</i>
Hank Wesselman	<i>Spiritwalker</i>
Louise Voss	<i>To Be Someone</i>
Nikolai Gogol	<i>The Collected Stories of Nikolai Gogol</i>
Anne Rice	<i>Queen of the Damned</i>
Barbara Hambly	<i>Star Wars: Children of the Jedi</i>
Alan Dean Foster	<i>Phylogenesis</i>
Arthur C. Clarke & Frederik Pohl	<i>The Last Theorem</i>
Ava Dianne Day	<i>Cut to the Heart</i>
Moira Hodgson	<i>It Seemed Like a Good Idea at the Time</i>
Tim Waggoner	<i>The Sea of Death</i>
Peter Shockey, Stowe D. Shockey	<i>Journey of Light</i>
Richard Ford	<i>A Multitude of Sins</i>
Jan Wong	<i>Red China Blues</i>
Doris Lessing	<i>The Summer Before the Dark</i>

Alan Deutschman	<i>The Second Coming of Steve Jobs</i>
H.G. Wells	<i>Tono-Bungay</i>
Jan Wong	<i>Red China Blues</i>
Morag Joss	<i>The Night Following</i>
Robert A. Wilson	<i>Schrodinger's Cat Trilogy</i>
V.S. Naipaul	<i>The Writer and the World</i>
David Shields	<i>The Thing About Life is that One Day You'll Be Dead</i>
Andrew Davidson	<i>The Gargoyle</i>
Dean Koontz	<i>77 Shadow Street</i>

Appendix E

Recommendations for *A Whistling Woman* from LibraryThing

Author	Title
A.S. Byatt	<i>Still Life</i>
A.S. Byatt	<i>The Biographer's Tale</i>
A.S. Byatt	<i>The Virgin in the Garden</i>
A.S. Byatt	<i>Babel Tower</i>
Margaret Drabble	<i>The Peppered Moth</i>
Iris Murdoch	<i>The Green Knight</i>
Margaret Drabble	<i>The Radiant Way</i>
Penelope Fitzgerald	<i>The Blue Flower</i>
Rebecca West	<i>The Fountain Overflows</i>
Iris Murdoch	<i>The Sea, The Sea</i>
Peter Carey	<i>Oscar and Lucinda</i>
Angela Carter	<i>Wise Children</i>
Peter Carey	<i>Jack Maggs</i>
Margaret Drabble	<i>The Seven Sisters</i>
Peter Carey	<i>My Life as a Fake</i>
Iris Murdoch	<i>The Bell</i>
Penelope Fitzgerald	<i>Offshore</i>
Penelope Fitzgerald	<i>The Bookshop</i>
Colm Tóibín	<i>The Master</i>
Margaret Drabble	<i>The Millstone</i>

Appendix F

Screengrab of full tag cloud for *A Whistling Woman* from LibraryThing



Appendix G

Recommendations for *A Whistling Woman* from NoveList Plus

Author	Title
John Banville	<i>The Sea</i>
Hilary Mantel	<i>A Change of Climate</i>
Ian McEwan	<i>Amsterdam</i>
Ian McEwan	<i>Atonement</i>
Joyce Carol Oates	<i>The Gravedigger's Daughter</i>
Joyce Carol Oates	<i>Broke Heart Blues</i>
Richard Powers	<i>The Gold Bug Variations</i>
Richard Powers	<i>The Time of Our Singing</i>
Reynolds Price	<i>Noble Norfleet</i>