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"Reading Rants!":
Exploring the Design and Implementation of a Social Cataloging Tool for Teens

Rachel Hall | Rebecca Troup | Rebecca Ramsey

Abstract:

In this paper we explore the possibility of creating and implementing an interactive library OPAC interface, called Reading Rants!, that would be designed for and used exclusively by teens. An interactive interface such as Reading Rants! would allow teenagers to interact with their library catalog by contributing content to bibliographic records. Content creation is an integral aspect of the Web 2.0 experience; it transforms the user's experience with the catalog into a dynamic conversation. By providing this highly valued service for teenagers, public libraries would elevate their worth to future library supporters and become more essential to and embedded in the community.

Keywords:

OPAC | SOPAC | Social Cataloging | Teenagers | Young Adult Services

1. Introduction

In this paper we explore the possibilty of creating and implementing an interactive library OPAC interface, called *Reading Rants!*, that would be designed for and used exclusively by teens. An interactive interface such as *Reading Rants!* would allow teenagers to interact with their library catalog by contributing content to bibliographic records. Given any item in the catalog, teens could rate the item, add tags to describe it, submit a review, comment on others' reviews, and post to a discussion forum about the item. The interface would be flexible and could be "plugged in" to virtually any library's OPAC.

By allowing teens to contribute content to OPACs, *Reading Rants!* would enable them to interact with libraries in a way that they have come to value and indeed expect from using Web 2.0 applications. Content creation is an integral aspect of the Web 2.0 experience; it transforms the user's experience with the catalog into a dynamic conversation. By providing this highly valued service for teenagers, public libraries would elevate their worth to future library supporters.

Reading Rants! would also provide a space for teens to freely explore literature and other library materials without mediation from those outside their peer group. Moreover, it would connect them with their own peer group by allowing them to see *locally* relevant trends, reviews, comments, ratings and tags. New content would be contributed by teenagers who use the same public library and live in the same community, which means that teenagers within a single community would have the opportunity to converse with each other and develop productive relationships via their public library OPAC. The interface would also allow teens to connect with peers outside their communities if they wished to do so. The public library would thus act as a public "forum" and become more essential to and embedded in the community.

2. Description of the Service

The core of *Reading Rants!* is the item review page (see fig. 1). Every bibliographic record in the library catalog would include a *Reading Rants!* review page to which teens could contribute content. Library users could access these review pages from either the *Reading Rants!* home page (see fig. 2), or from links embedded in the library's main page, OPAC, and item records (see figs. 3-5). *Reading Rants!* review pages would contain the following content:

- Basic bibliographic data including title, author, cover image, synopsis, availability, and link to full item record in the library's OPAC
- Author photo and link to author biography
- "Rants"—i.e. teen-contributed reviews
- Ratings from 1 to 5
- Tags / tag cloud
- Video reviews
- Discussion board
- Search box

- User log-in box. Log-in is necessary to post rants, comments, ratings, tags, and videos, and lists
- Radio buttons to display either global or local content

Because *Reading Rants!* is intended to be a value-added service that public libraries could provide rather than a general web-based social networking site, libraries would need to subscribe to *Reading Rants!* in order to make its content available to their users. The *Reading Rants!* service would also need to identify which library the user belonged to in order to customize local content. Finally, teens would use the barcode number on their library cards to register for the site, and library data would be used to validate the user's age. Only teens ages 12-19 would be allowed to contribute to *Reading Rants!* This would be partly to ensure that it was a place that feels like "home" to teens because their culture and communication styles would predominate. It would also help to ensure that *Reading Rants!* was a safe site for minors, and could be used by libraries that must meet federal standards for child internet protection.

Users would also be required to read and agree to the terms of the *Reading Rants!* privacy policy. As per the American Library Association's Code of Ethics, libraries strive to protect the privacy of their patrons in order to ensure intellectual freedom. In the spirit of this code, libraries would agree not to disclose the real names or identities of *Reading Rants!* users unless required by federal subpoena in a criminal investigation. Theft of *Reading Rants!* Account information would be treated the same as library card theft, and would be handled according to libraries' existing policies. Yet teen library users would still need to understand that personal views and opinions posted to *Reading Rants!* would be visible on a public site, and that libraries cannot prevent community members from deducing users' identities based on personal disclosures made by the users themselves; in other words, teen users of *Reading Rants!* would need to exercise discretion, just as they must when using other online social networking and self-publishing sites.

Library IT staff would handle the installation of *Reading Rants!*, and would continue to be minimally involved in ongoing support and maintenance. Installing *Reading Rants!* would be simple: it involves adding just a few lines of java code to the library's OPAC software, and adding a link to the library's home page or teen web page. But a larger time investment would be needed from the library's youth services librarians to monitor and moderate user postings on *Reading Rants!* Although *Reading Rants!* content would be intended to be teen-centered, not adult-directed, teens sometimes need guidance in deciding what is and is not appropriate. Each library would be responsible for removing any harassing, bullying, or obscene posts made by its users and preventing recurrences.

Introducing any new application always takes time. People, even the teens who are often called "digital natives" and assumed to embrace all things technological, are generally hesitant to try something new. *Reading Rants!* would be more successful at any given library if teen patrons, especially teen advisory board members and other natural leaders, were given plenty of encouragement to give it a try. The involvement of a youth services librarian and teen advisory board in planning and implementing the launch would be critical.

3. Potential or Intended Use
Reading Rants! would assist teenagers with several types of information seeking, including homework, independent study, and recreation. The features to incorporate into *Reading Rants!* include reviewing, commenting / discussing, rating and tagging. This section offers a brief description of each feature and how it could be used to facilitate information discovery and increase the OPAC's value.

3.1 Reviews
When teenagers review books, movies, music, and games, they reflect upon, assess, question, and form a dialogue with the content. The value of online writing is often contested, but Angela Lunsford recently finished collecting five years' worth of data for her longitudinal *Stanford Study of Writing* to investigate the links between academic and nonacademic writing in students' writing development—including writing produced online in social contexts. Preliminary findings indicate that young people today are writing far more than the generations before them, and that "students [are] remarkably adept at what rhetoricians call *kairos*—assessing their audience and adapting their tone and technique to best get their point across" (Thompson). Lunsford's study suggests that students who write for an online audience often learn to be concise, nuanced, and persuasive.

Teenagers benefit from reading reviews written by members of their own peer group, too. These reviews often provide unique, candid, and meaningful perspectives on an item's value, and can help information seekers decide whether the item will be useful. By allowing teenagers to review library materials via *Reading Rants!*, libraries would be supporting information selection, literacy, and critical thinking. Teenagers would consequently become more invested in the library's offerings.

3.2 Commenting / Discussing
Reading Rants! would allow teens to react to each other, too, by commenting on each others' reviews and contributing to discussion threads. McLeod and Vassinda argue that this aspect of Web 2.0 technology encourages critical thinking:

> Web 1.0 was one-way communication, a lecture or a monologue… [but] Web 2.0 can be compared to a dialogue, an engaging class discussion or two-way communication… Viewing their own text as dynamic allows students to broadly conceive of text critically, as a dialogue rather than a monologue. (260, 271)

Not all online discussions are productive. "Flames," for instance, are a byproduct of Internet communication in which contributors exploit their anonymity to post inflammatory comments online. Requiring contributors to log in with usernames that are tied to their real-life identities could mitigate this behavior. Under the right circumstances, though, the public nature of online debate can actually encourage contributors to clarify and substantiate their positions. Teenagers who discussed library holdings and commented on their peers' reviews would often engage in thoughtful discourse and become constructive participants in the library community.

3.3 Ratings
Some libraries are wary of allowing their users to rate items because ratings can persuade other information seekers to quickly dismiss items that might be useful. Moreover, Merčun and Žumer have argued that, in order for this data to be meaningful when aggregated, a "critical mass" is needed (248). In other words, when more users contribute content, the results become less skewed—5000 ratings can provide a more accurate picture of community consensus than 5. There is no consensus on what exactly constitutes critical mass quantitatively, but it is clear that no library with an interactive OPAC has yet achieved critical mass on its own.

Why should libraries bother with ratings at all if they are so problematic? Information seekers *want* to rate items; they have demonstrated this on popular websites such as Amazon, Netflix, LibraryThing, and even Facebook. Many, including Adams; Coyle; Flowers; Lovins; Mendes, Quiñonez-Skinner, and Skaggs; Merčun and Žumer; Westcott, Chappell, and Lebel; and Weibel argue that libraries need to implement OPAC interfaces that accommodate information seekers' habits—or the seekers will go elsewhere. Amidst a proliferation of online information, ratings actually help teenagers vet content and make decisions. If libraries can find a way to achieve critical mass, ratings will enrich the OPAC and guide teens' decision-making.

3.4 Tags
"Tags" are user-generated keywords that describe items. Tags are useful because they describe items in ways that capture diverse user perspectives. However, this lack of vocabulary control can also complicate the search process because it doesn't aggregate like-items into a single search (Mendes, Quiñonez-Skinner, and Skaggs 31). Because *Reading Rants!* would supplement rather than replace the traditional OPAC, tags would serve as an additional layer of information that enhances rather than undermines formal taxonomies.

Because of their loose structure, tags are generally considered useful only for browsing. However, Westcott, Chappell, and Lebel have convincingly argued that tags also facilitate more formal information discovery. Some items in foreign languages, for example, do not have Library of Congress Subject Headings and cannot be found in a subject search. However, when these items are tagged, information seekers can still find these items by searching for shared tags(80). Tags also support discovery of items that are not easily described by subject headings. A student from Claremont University was writing her thesis on themes of abuse in fiction and could not find items in the library OPAC via keyword or subject heading searches. However, when she searched shared tags for *The Color Purple* by Alice Walker, the student finally discovered a substantial list of fiction books for her research (*Ibid.*). Tags would not only enhance teens' browsing experiences, but would also give them an additional avenue to discover information for study and an incentive to use library resources.

Teenagers are a substantial yet underserved user group, and they are future supporters of public libraries. They visit the library more than any other age group (Rainie), yet Sarah Flowers contends that teens' "developmental characteristics and life circumstances. . . present a distinct challenge for reference service professionals" (4). In 2008, Flowers helped author YALSA and RUSA's *Guidelines for Library Services to*

Teens. One of these guidelines urges librarians to understand how "digital natives" perceive the world; it recommends that librarians "Incorporate the use of social networking (for example, instant messaging, blogs, and social Web sites) into service plans that are designed to provide reference services to teens" (6). Past president of the Canadian Library Association, Stephen Abram, agrees. He says that among the best ways for librarians to advocate for teen information seekers are to advocate for tools and technologies that align with teens' comfort levels, and to advocate to teens in their spaces, including social environments such as MySpace, Facebook, and Second Life (36). *Reading Rants!* could help public libraries approach teens on their own terms and thus cultivate lasting relationships with this key demographic of library users.

4. Relationship to Extant Resources

Most OPACs are significantly behind popular online services such as Amazon and Google in terms of functionality, ease of use, and overall appeal. A 2008 study by Merčun and Žumer found that most library catalogs have been designed without sufficient understanding of the end-user's behavior, and that many information seekers therefor prefer to use other resources that are better suited to their habits. Merčun and Žumer's quantitative analysis identifies dozens of features that information seekers like to use but are not widely offered by OPACs. *Reading Rants!* seeks to fill that gap by integrating several interactive Web 2.0 features that will enrich the teenage information seeker's library experience.

      Around 2007, several libraries started to experiment with interactive OPAC interfaces. These services include MTagger, PennTags, LibraryThing For Libraries, AADL SOPAC, SOPAC 2.0, and BiblioCommons. Three distinct kinds of OPACs seem to have emerged: the Tag Cloud OPAC, LibraryThing For Libraries, and the Social OPAC; these have been implemented with varying degrees of success.

4.1 The Tag Cloud OPAC
The University of Michigan Library's MTagger (http://www.lib.umich.edu/mtagger/) and the University of Pennsylvania Libraries' PennTags (http://tags.library.upenn.edu/) both feature tags. Contributors log in to tag individual items, and any information seeker can then search tags to find related items. MTagger and PennTags are useful because they use tags to supplement subject headings, but otherwise they do not have much to offer. Although the tag clouds are visually striking, they have not been integrated into the OPAC very well and navigation is clumsy. Both services also have yet to achieve a critical mass of data, making items' tags seem skewed and sparse. MTagger and PennTags will likely struggle to achieve critical mass unless they can create buy-in by making their services more appealing to information seekers.

4.2 LibraryThing For Libraries
The Claremont University Consortium Libraries (http://blais.claremont/edu/) have implemented LibraryThing For Libraries (LTFL), which draws on the popular web service LibraryThing. Like MTagger and PennTags, the service is based on tags; information seekers scroll through the item record to view item tags, related tags,

shared tags, and similar books from the LibraryThing database. Because the tags have been fully integrated into the OPAC at the item level, navigation is much less awkward in LTFL than in either MTagger or PennTags.

LTFL presents an easy way for libraries to incorporate user-generated tags without having to completely overhaul their OPAC or build a tag base over time. The only drawback is that these tags represent the entire LibraryThing user base rather than any individual library's specific community. But LTFL can still help libraries explore next-generation catalog tools without committing to a major change in software (Westcott 80-1).

4.3 The Social OPAC
Ann Arbor District Library's AADL SOPAC (http://www.aadl.org/catalog/), Darien Library's SOPAC 2.0 (http://www.darienlibrary.org/catalog), and Ontario Public Library's BiblioCommons (http://opl.bibliocommons.com) incoroprate tags too, but they also offer several additional interactive features. AADL SOPAC and SOPAC 2.0 both look like traditional OPACs, but with the inclusion of facted browsing, tag clouds, reviews, comments, and ratings.

Oakville Public Library's BiblioCommons offers all the features of AADL SOPAC and SOPAC 2.0, but also includes exceptional visual browsing functionality, the ability to upload videos, and easy-to-use widgets for over 100 popular social websites such as Facebook, Twitter, Amazon, and Wordpress. While BiblioCommons has not quite achieved critical mass, it does have more activity than any other interactive OPAC; this is likely due to its many appealing features that have established community buy-in.

Reading Rants! would emulate existing Social OPACs such as AADL SOPAC, SOPAC 2.0, and BiblioCommons, but would be unique because it would be exclusively for teens and provide these "digital natives" a much-needed library space to interact with their peers. It would be essential for library administrators to offer early incentives for contributing to the OPAC and to conduct frequent assessments of the tool to ensure that information seekers are invested in building a critical mass of data (Weibel 235).

5. Design Strategy
Reading Rants! would be developed in Drupal using SOPAC 2.0, an OPAC overlay application created by the Darien, Connecticut, library department of technology and digital initiatives, as a model. Drupal is open-source software, and SOPAC 2.0 is covered by a GNU General Public License intended to encourage widespread development, so software costs will be minimal.

Content that is not created by teen users—that is, book summaries, author photos and biographies, and catalog information—would be accessed from the local library catalog and from amazon.com. There would be no need to purchase content.

Reading Rants! would be hosted on a dedicated server, using a full-service managed hosting provider. Systematic backups and disaster management would be included in the cost of service. The size of server needed would depend on the number of participants and the number of posts that they make, and price is dependent on size.

A 250GB hard drive with 2,000 GB bandwidth will be sufficient for at least the first year. Prices range from $320 - $450 per month.

The *Reading Rants!* development team would be led by a digital librarian who serves as both content specialist and project manager. It would also include a Drupal developer, and youth services librarians from two libraries that will pilot the application, each with a teen advisory board and a library IT technician.

Appendix A: Reading Rants! Timeline

Month One: Development
1. Create detailed design document. Digital librarian: 20 hours. 2 youth services librarians: 10 hours each. Drupal developer: 5 hours.
2. Arrange for hosted server. Digital librarian: 2 hours.
3. Application development. Drupal developer: 40 hours.
4. Test application; revise as needed. Digital librarian: 5 hours. 2 youth services librarians: 10 hours each. 4 teens: 5 hours each. Drupal developer: 20 hours.
5. Create initial content. 2 youth services librarians: 10 hours each. 8 teens: 10 hours each.

Months Two – Three: Deployment and Training
6. Pilot launch, one library. Install software, do publicity, assist initial users. Digital librarian: 2 hours. Library IT technician: 4 hours. Drupal developer: 1 hour. Youth services librarian: 20 hours. Teen advisory board: as needed.
7. Create instruction manual for launch: Digital librarian: 5 hours. Library IT technician: 1 hour. Drupal developer: 1 hour. Youth services librarian: 1 hour.
8. Pilot launch, second library, following instruction manual: Library IT technician: 4 hours. Youth services librarian: 20 hours. Teen advisory board: as needed.
9. Run application at 2 libraries for 2 months.

Months Four – Twelve: Implementation and Evaluation
10. Feedback and evaluation meeting: digital librarian, 2 youth services librarians, Drupal developer, 4 teens: 1 hour each.
11. Follow-up: digital librarian and Drupal developer: up to 5 hours each.
12. Launch at 3 more libraries during the first year. Digital librarian continues to monitor and provide assistance. Digital librarian: 4 hours per week for 40 weeks. Time spent by local library staff is considered part of their ordinary work, and not accounted for in proposal.
13. Feedback and evaluation meeting, create report. Digital librarian: 5 hours. 2 youth services librarians and 4 teens: 2 hours each.

Total time:
   Digital Librarian: 205 hours.
   2 Youth Services Librarians: 54 hours each.
   Drupal Developer: 72 hours.
   Library IT Technicians: 8 hours.
   Teens (total hours): 112 hours.

Appendix B: Reading Rants! Budget

Personnel		
Digital Librarian	205 hrs @ $25/hr = $5125	
Youth Services Librarians	108 hrs @ $15/hr = $1620	
Drupal Developer	72 hrs @ $50/hr = $3600	
IT Technicians	8 hrs @ $20/hr = $160	
Teens	112 hrs @ $8/hr = $896	
	Total	$11,401
Plan for 10% overrun		$ 1,140
Server	12 months @ $400	$4,800
Travel (gas, meal)		
Design meeting	2 travelers @ $40 = $80	
Test meeting	2 travelers @ $40 4 travelers @ $10 = $120	
First pilot launch	1 traveler @ $40 1 traveler @ $100 = $140	
Pilot evaluation meeting	2 travelers @ $40 4 travelers @ $10 = $120	
Monitor / support visits to libraries by digital librarian	10 trips @ $40 = $400	
Final evaluation meeting	2 travelers @ $40 4 travelers @ $10 = $120	$980
	TOTAL	**$18,321**

Table 1 First Year Budget

Personnel		
Digital Librarian	10 hrs/month @ $25/hr	$3000
Server	12 months @ $450	$5,400
Travel		
Monitor / support visits to libraries by digital librarian	5 trips @ $40	$200
	TOTAL	**$8,600**

Table 2 Estimated Second Year Budget

Appendix C: Reading Rants! Visuals

Fig. 1. *Reading Rants!* Home Page

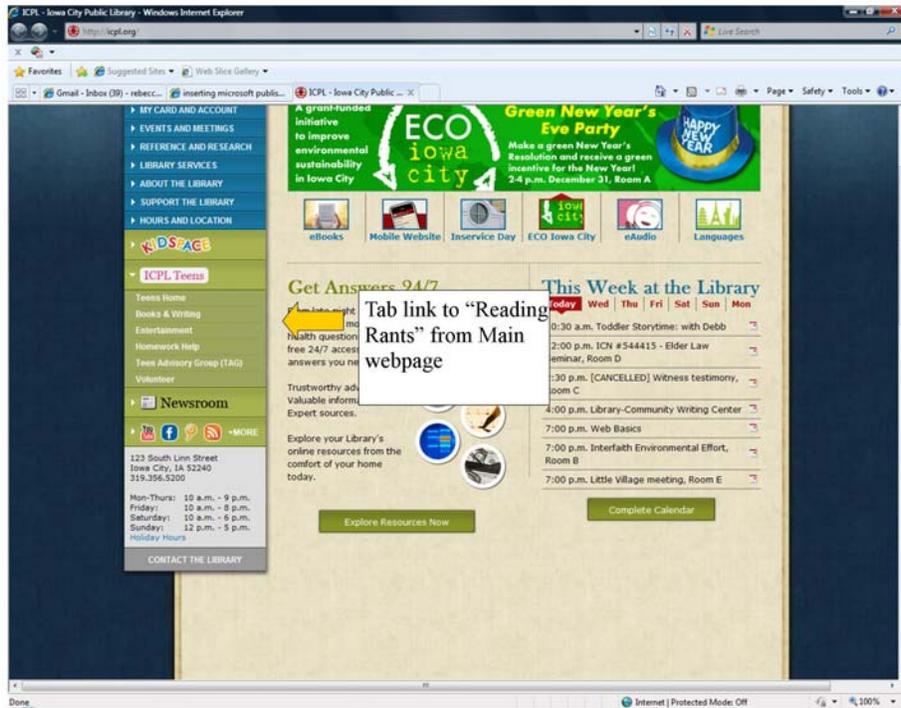Fig. 2. *Reading Rants!* Rant Page for *Twilight* by Stephenie Meyer

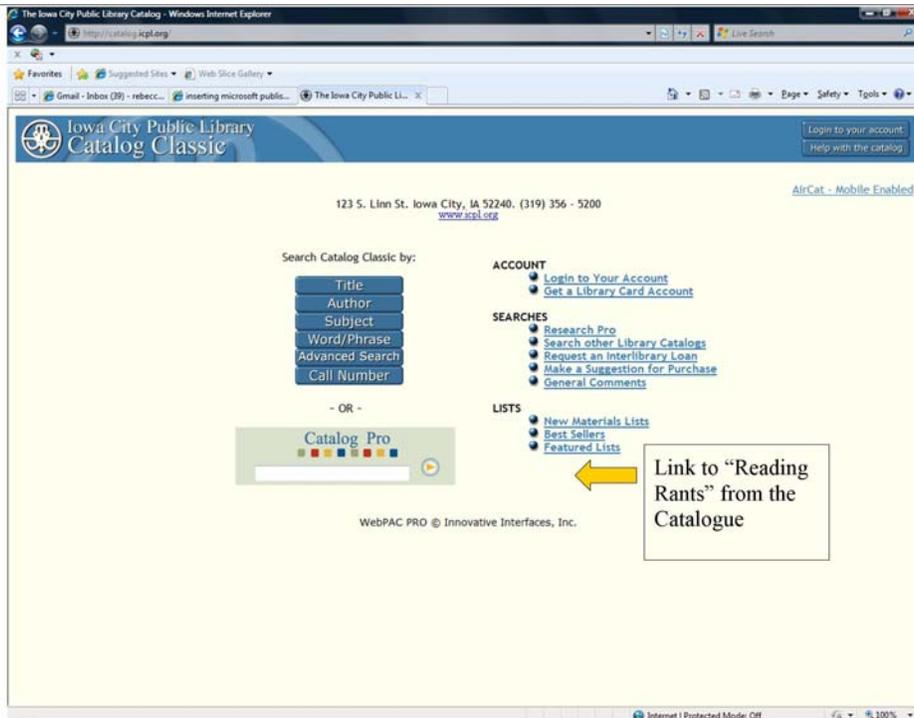Fig. 3. Link to *Reading Rants!* from the Library Home Page

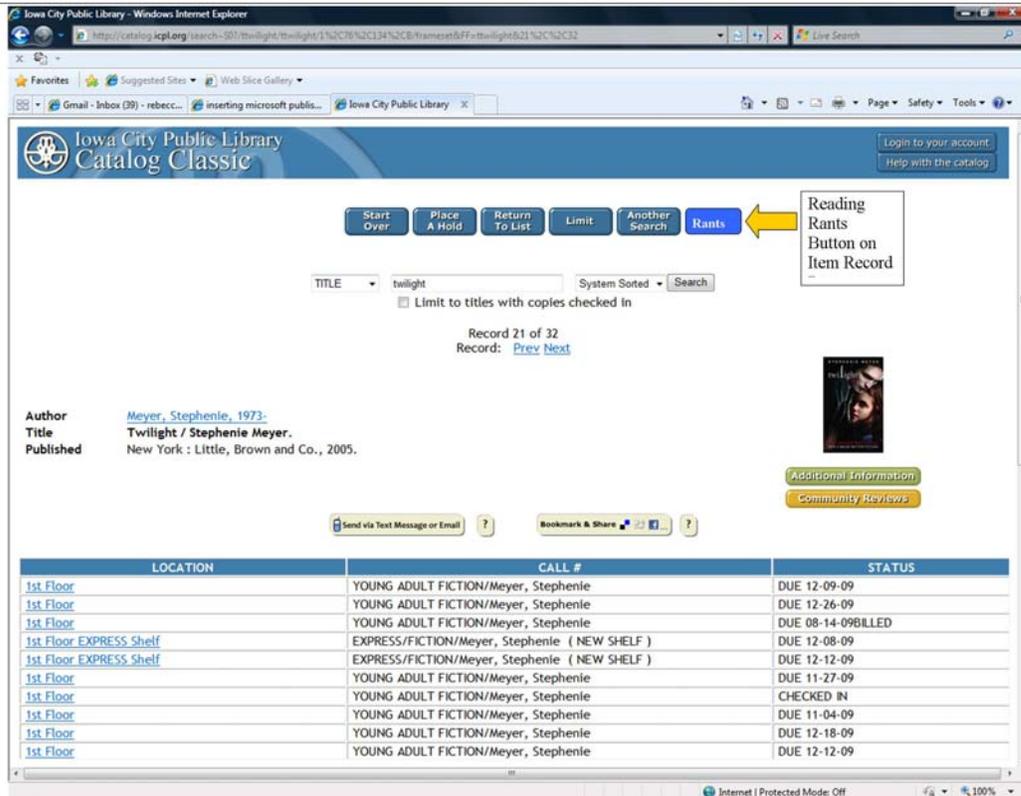Fig. 4. Link to *Reading Rants!* from the Library OPAC

Fig. 5. Link to *Reading Rants!* from the Item Record for *Twilight* by Stephenie Meyer

Appendix D: Focus Group Questions

Focus groups with five library Teen Advisory Boards would be held to test *Reading Rants!* prior to release. This preliminary questioning aims to gauge teen interest and concerns. The questions are intended to be broad and open-ended to be conducive to dialogue.

After release, focus groups would continue to be held with libraries that planned to purchase *Reading Rants!*. This would help engage teens and build a user base. Individual libraries could customize the *Reading Rants!* color scheme to better match the look and feel of their own websites.

1. Do like the name "*Reading Rants!*"?
2. Would you use *Reading Rants*? If not, why?
3. How would you like to use *Reading Rants*?
4. Do you like the look and colors? Is there anything you would change?
5. Are there any other features you want to add to *Reading Rants*?

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