
A framework to predict the quality of answers with non-textual features

- Type** Conference Paper
- Author** Jiwoon Jeon
- Author** W. Bruce Croft
- Author** Joon Ho Lee
- Author** Soyeon Park
- Abstract** New types of document collections are being developed by various web services. The service providers keep track of non-textual features such as click counts. In this paper, we present a framework to use non-textual features to predict the quality of documents. We also show our quality measure can be successfully incorporated into the language modeling-based retrieval model. We test our approach on a collection of question and answer pairs gathered from a community based question answering service where people ask and answer questions. Experimental results using our quality measure show a significant improvement over our baseline.
- Date** August 6-11, 2006
- Proceedings Title** Proceedings of the 29th annual international ACM SIGIR conference on research and development in information retrieval (SIGIR '06)
- Place** New York, NY
- Publisher** ACM
- Pages** 228-235
- DOI** 10.1145/1148170.1148212
- Date Added** Friday January 7, 2011 10:55:21 am
- Modified** Monday January 17, 2011 8:49:49 pm

Tags:

algorithm, answer evaluation, answer quality prediction, automated evaluation, evaluative metadata, expert judges, human evaluation, naver, quality, social answers

Notes:

Abstract: The authors presented a framework to predict the quality of answers in a social Q&A service through non-textual features (mostly evaluative metadata). They randomly selected 125 Naver search queries and chose the 20 most highly ranked (per query) question/answer pairs from a set of 6.8 million Naver Q&A pairs to be evaluated on a three-point answer quality scale by human judges (a total of 1,700 Q&A pairs). The researchers' automated algorithm used 13 non-textual features: the answerer's acceptance ratio, the answer length, the questioner's rating, the answerer's overall level of activity, the answerer's level of activity within the category, the number of times the answer was printed, the number of times it was copied, the number of user recommendations, the number of user dis-recommendations, whether the answer was recommended by an editor, whether the answerer was featured in the category, and the number of clicks on the answer. A second sample of 894 Q&A pairs was manually evaluated and used to train the algorithm, which was then tested on the first sample and showed a significant improvement on random chance for evaluation and retrieval purposes. [AW]

A Librarian's Worst Nightmare: Yahoo! Answers, Where 120 Million Users Can Be Wrong

Type Magazine Article
Author Jacob Leibenluft
Publication Slate Magazine
Date March 22, 2009 2007
URL <http://www.slate.com/id/2179393>
Date Added Friday January 7, 2011 10:55:21 am
Modified Friday January 7, 2011 10:55:21 am

A model for online consumer health information quality

Type Journal Article
Author Besiki Stvilia
Author Lorri Mon
Author Yong Jeong Yi
Publication Journal of the American Society for Information Science and Technology
Volume 60
Issue 9
Pages 1781-1791
Date 09/2009
Journal Abbr JASIST
DOI 10.1002/asi.21115
ISSN 15322882
Library Catalog CrossRef
Date Added Friday January 28, 2011 11:41:12 am
Modified Friday January 28, 2011 11:41:22 am

Tags:

aw:added, criteria, health consumers, health resource evaluation, human evaluation, information quality, interviews, model, quality, question askers, survey, transcripts

Notes:

Abstract: Described a model of the information quality of online consumer health information, with the intention it could be used by consumers, caregivers, and information professionals to more reliably evaluate such information. Five quality criteria were identified: accuracy (including credibility and reliability), completeness (including clarity), authority, usefulness (including objectivity and utility), and accessibility (including cohesiveness, consistency, and volatility). Five constructs to use in evaluation were also developed, mapped to the criteria: baseline markers (provider name, about, third-party quality seal, copyright, disclaimer, privacy policy, and search box), authorship markers (authors' names, credentials, and affiliations), assurance markers (editorial review process, quality guidelines, accessibility,

and formal information quality criteria), verifiability markers (references, last updated date, and contact links), and content ownership markers (terms of use and sponsored content). The model was grounded in content and statistical analysis of Web pages, Internet Public Library e-mail reference transcripts, a survey of consumers, and interviews with survey participants. Results also indicated that genre-specific templates would be necessary for successful quality evaluation. In addition, the researchers found that "consumers may lack the motivation or literacy skills to evaluate the information quality of health Web pages" (p. 1781), and suggested automatic evaluation tools would be useful. [AW]

A multi-dimensional model for assessing the quality of answers in social Q&A sites

Type Report
Author Zhemin Zhu
Author Delphine Bernhard
Author Iryna Gurevych
Report Number TUD-CS-2009-0158
Report Type Technical Report
Place Darmstadt, Germany
Institution Technische Universitat Darmstadt
Date October 2009
URL http://tuprints.ulb.tu-darmstadt.de/1940/1/TR_dimension_model.pdf
Date Added Monday January 24, 2011 3:30:16 pm
Modified Monday January 24, 2011 3:33:12 pm

Tags:

answer evaluation, answerbag, automated evaluation, aw:added, expert judges, human evaluation, quality, question askers, social answers, survey, wikianswers, yahoo! answers

Notes:

Abstract: The researchers applied information quality (IQ) and natural language processing (NLP) research to the problem of assessing the quality of answers in social Q&A sites, developing a model using 13 criteria that could be automated using NLP techniques. Drawing upon work in IQ, they informally surveyed Answerbag users (via Answerbag itself), analyzed site guidelines (from Answerbag, WikiAnswers, and Yahoo! Answers), and conducted their own analysis of supposed good (from experts on AllExperts) and bad (from Answerbag) quality questions to identify dimensions. 13 were identified overall: informativeness, politeness, completeness, readability, relevance, conciseness, truthfulness, level of detail, originality, objectivity, novelty, usefulness, and expertise. A small data set of 50 Answerbag answers was evaluated using these dimensions to identify key relationships among the criteria. Factor analysis identified three overall factors: content, understandability, and originality. Drawing on NLP testing methods, a larger data set of 256 Q&A pairs from Answerbag was used to test the validity of a linear regression model based on the criteria. An accuracy level of 83.98% was obtained relative to human evaluation, and the authors suggested appropriate NLP techniques that could be used to automatically evaluate the quality of answers. [AW]

Automatic detecting indicators for quality of health information on the Web

- Type** Journal Article
- Author** Yunli Wang
- Author** Zhenkai Liu
- Abstract** Objectives To automatically evaluate the quality of health information on the Internet, we presents a method for detecting indicators for quality of health information.Methods An automatic indicator detection tool (AIDT) was developed in the following steps: (1) 18 initial technical criteria were chosen; (2) multiple measurable indicators were defined for each criterion; (3) these measurable indicators on the Web pages were automatically detected by a computer program; (4) the detectable indicators were selected for each criterion based on detection accuracy and occurrence frequency, and detecting criteria on Web pages; (5) AIDT was developed based on the detectable indicators and criteria. The efficiency of detection tool was measured by recall and precision of detecting criteria. The performance of AIDT was tested using three data sets.Results AIDT with validated detectable indicators can reach 93% recall and 98% precision on these data sets. AIDT can automatically and correctly detect measurable criteria on Web pages.Conclusions Automatic detecting indictors for quality of health information is feasible and effective. Using an automatic detecting tool is a promising method for identifying quality criteria of health information, and eventually it can be used to develop instruments for evaluating the quality of health Websites.
- Publication** International Journal of Medical Informatics
- Volume** 76
- Issue** 8
- Pages** 575-582
- Date** August 2007
- DOI** 10.1016/j.ijmedinf.2006.04.001
- ISSN** 1386-5056
- Library Catalog** ScienceDirect
- Date Added** Thursday February 3, 2011 10:05:50 am
- Modified** Thursday February 3, 2011 10:06:29 am

Tags:

algorithm, automated evaluation, aw:added, criteria, detection, extraction, health resource evaluation

Notes:

Abstract: The authors developed an automatic indicator detector tool (AIDT) intended to detect and extract indicators of the quality of health information and thus automatically evaluate its quality. They focused on domain-independent criteria, wanting to be able to apply the tool in multiple medical domains. 18 initial technical criteria were chosen from the 26 identified by Eysenbach et al. (2002), based on their being reasonable, understandable, measurable, observable, and detectable. These fell within seven categories: authority, source, currency, content, disclosure, interactivity, and commercialization. The authors defined multiple operational measures for each and detected and tested them algorithmically to determine accuracy and frequency. AIDT was developed based on those indicators and criteria that were accurately detectable; author's credentials and affiliation were removed due to low accuracy, while date

of creation was removed due to low frequency. The researchers then tested AIDT against three data sets—the top 30 results from Google searches for "acne," "melanoma," and "skin cancer"—and found high levels of recall and precision in obtaining values for criteria; humans still performed slightly better, however. The authors concluded that such an automatic detection algorithm was both feasible and effective, and could be used to reduce information overload via filtering. [AW]

Related

- Rule-based automatic criteria detection for assessing quality of online health information

Best-answer selection criteria in a social Q&A site from the user oriented relevance perspective

Type Conference Paper

Author Soojung Kim

Author Jung Sun Oh

Author Sanghee Oh

Date 2007

Proceedings Title the 70th Annual Meeting of the American Society for Information Science and Technology

DOI 10.1002/meet.1450440256

Date Added Friday January 7, 2011 10:55:00 am

Modified Thursday January 13, 2011 12:07:05 pm

Tags:

answer evaluation, best answers, comments, human evaluation, question askers, social answers, social q&a, taxonomy, yahoo! answers

Notes:

Abstract: The authors identified selection criteria used by people selecting best answers in Yahoo! Answers, drawing upon research on user-determined relevance. Iterative and inductive content analysis of 465 comments left by users indicating a specific reason for selecting an answer as "best" were analyzed. The content of the questions was also analyzed to determine if they sought information, opinions, or suggestions. Seven broad categories of selection criteria were identified: (a) content value, (b) cognitive value, (c) socio-emotional value, (d) information source value, (e) extrinsic value, (f) utility, and (g) general statements not falling into other categories. Each of these criteria contained multiple specific reasons for selection. Socio-emotional value was the most prominent category (33.3% of all comments), especially in questions asking for opinions from others. Content value (17.8%) and utility (14.8%) were also important, especially for informational questions. Agreement (15.0%), solution feasibility (8.7%), affect (6.7%), and effectiveness (6.1%) were the most common specific reasons for selection. The authors concluded that the dominance of the socio-emotional value category and the large proportion of questions asking for opinion or suggestions were indicative of what people sought from Yahoo! Answers. [AW]

Related

- Users' relevance criteria for evaluating answers in a social Q&A site

Breast and prostate cancer online discussion boards: A thematic analysis of gender differences and similarities

Type Journal Article
Author Rebecca J. Gooden
Author Helen R. Winefield
Abstract Online discussion boards are being used increasingly by cancer survivors, highlighting the need for understanding this potentially supportive communication process. Two online discussion boards, a prostate group and a breast cancer group, were studied using mixed methodology of both Grounded Theory and a quasi-numerative approach. Both men's and women's dialogues fell under two themes, information support and emotional support. Information support accounted for 60 per cent of communications in women and 64 per cent in men and emotional support 40 per cent in women and 36 per cent in men. However, there were gender differences in the language styles of these communications. Further research is recommended to understand adequately the emotional content within women's and men's dialogues in the context of breast and prostate cancer discussion boards.
Publication Journal of Health Psychology
Volume 12
Issue 1
Pages 103 -114
Date January 01 , 2007
DOI 10.1177/1359105307071744
Library Catalog Highwire 2.0
Date Added Thursday January 13, 2011 12:03:13 pm
Modified Thursday January 13, 2011 12:03:51 pm

Tags:

breast cancer, discussion boards, emotional support, information support, prostate cancer, social support

Notes:

Abstract: This study examined two online discussion boards for cancer survivors (for prostate and breast cancer respectively) and the nature of social support discussions that took place in them, focusing on comparing and contrasting these across males and females. The authors used qualitative content analysis and grounded theory coding of posts to the two discussion boards from one month, with summary quantitative statistics calculated once coding was complete. The researchers found two overall categories of discussion, information support—facts about and effects of the disease—and social support—coping, nurturing, and expressing. Each category consisted of multiple codes within them, discussed at some length in the article. Posts providing information support were more prevalent than emotional support amongst both women and men authors. However, gender differences in the language and style of communications were identified, including in the use and citing of sources, the use of humor, and the degree of expression of emotion. The authors concluded the discussion boards offered both emotional and informational social support to both men and women, providing "a sense of community ... to help members cope," albeit in subtly and qualitatively different ways. [AW]

CoCQA: Co-training over questions and answers with an application to predicting question subjectivity orientation

Type Conference Paper

Author Baoli Li

Author Yandong Liu

Author Eugene Agichtein

Abstract An increasingly popular method for finding information online is via the Community Question Answering (CQA) portals such as Yahoo! Answers, Naver, and Baidu Knows. Searching the CQA archives, and ranking, filtering, and evaluating the submitted answers requires intelligent processing of the questions and answers posed by the users. One important task is automatically detecting the question's subjectivity orientation: namely, whether a user is searching for subjective or objective information. Unfortunately, real user questions are often vague, ill-posed, poorly stated. Furthermore, there has been little labeled training data available for real user questions. To address these problems, we present CoCQA, a co-training system that exploits the association between the questions and contributed answers for question analysis tasks. The co-training approach allows CoCQA to use the effectively unlimited amounts of unlabeled data readily available in CQA archives. In this paper we study the effectiveness of CoCQA for the question subjectivity classification task by experimenting over thousands of real users' questions.

Date 2008

Proceedings Title Proceedings of the conference on Empirical Methods in Natural Language Processing (EMNLP '08)

Place Stroudsburg, PA

Publisher Association for Computational Linguistics

Pages 937-946

URL <http://aclweb.org/anthology-new/D/D08/D08-1098.pdf>

Date Added Wednesday January 19, 2011 5:10:51 pm

Modified Thursday January 20, 2011 4:00:19 pm

Tags:

algorithm, automated evaluation, aw:added, human evaluation, Mechanical Turk, question classification, question evaluation, question subjectivity, social q&a, yahoo! answers

Notes:

Abstract: The researchers argued that, when considering the problem of ranking answers in social Q&A sites, it is important to determine whether questions are subjective or objective. In particular, they were interested in using the structured, but unlabeled data available on such sites to improve question classification performance, particularly in predicting question subjectivity. They thus developed "CoCQA," a co-training system that "exploits the association between the questions and contributed answers" and determines the characteristics of questions, such as subjectivity (p. 937). Co-training uses two classifiers which are trained on separate sets of features—in this case questions and best answers—labeling their data and training each other from the newly labeled data. A training sample of 1,000 questions was randomly selected from five Yahoo! Answers categories, 200 from each category. Each was labeled by five workers from Amazon's Mechanical Turk as to its subjectivity; each worker received 25 questions. These assessments were then used to train CoCQA. On a larger testing sample of 10,000 questions (2,000 per category), CoCQA produced improvements over other algorithmic approaches (up to 7.2%) and required less training data to achieve comparable performance to one-trainer algorithms. [AW]

Consumer health information from both sides of the reference desk

Type Journal Article
Author Gail Kouame
Author Margo Harris
Author Susan Murray
Abstract This article addresses issues surrounding the provision of consumer health information in public libraries. Barriers to the use of public libraries by health care consumers are explored. Once a person has decided to try the public library as an avenue for searching for health information, interactions with library staff may still pose some challenges, both for the library user and for the librarian at the reference desk. Perceptions of the library as a place for health information often differ. Awareness of these issues can be helpful for both parties. The National Network of Libraries of Medicine can assist with training, Web resources, and funding for projects involving health information outreach to consumers.
Publication Library Trends
Volume 53
Issue 3
Pages 464-479
Date Winter 2005
Journal Abbr LT
Date Added Wednesday March 2, 2011 11:39:39 am
Modified Wednesday March 2, 2011 11:40:36 am

Tags:

barriers, consumer health information, evaluation, health reference services, information literacy,

instruction, marketing, orientation, outreach, promotion, public libraries, reference interviews, training

Notes:

Abstract: The authors first explored barriers that health consumers face in choosing and using public libraries: a diversity of needs and backgrounds, perceptions that the public library will not satisfy their needs, lower levels of information literacy, a lack of understanding of the reference interview process, and a lack of comfort in evaluating online health information. Librarians also faced challenges: unclear queries from patrons, poorly developed collections, and a reluctance to provide (or be perceived as providing) medical "advice" and "interpretation" (p. 473). The authors provided suggestions to aid public libraries and librarians find a "middle ground" (p. 465) and build common understanding. These included performing outreach for "missing patrons" (p. 467); providing introductory orientations, instruction, and resources—both face-to-face and online—to guide patrons' information seeking and improve their health information literacy; better explaining the process of reference interviews; providing more information in non-face-to-face media; careful communication of the limits of the librarian's role; completing training courses and developing appropriate guidelines for health reference interviews; more visibly promoting health-related community organizations; and broad-based marketing and promotion of the library's services. [AW]

Content quality assessment related frameworks for social media

Type Conference Paper

Author Kevin Chai

Author Vidyasagar Potdar

Author Tharam Dillon

Abstract The assessment of content quality (CQ) in social media adds a layer of complexity over traditional information quality assessment frameworks. Challenges arise in accurately evaluating the quality of content that has been created by users from different backgrounds, for different domains and consumed by users with different requirements. This paper presents a comprehensive review of 19 existing CQ assessment related frameworks for social media in addition to proposing directions for framework improvements.

Date 2009

Proceedings Title Computational science and its applications: ICCSA 2009

Place Berlin, Germany

Publisher Springer-Verlag

Volume 5593

Pages 791-805

Series Lecture Notes in Computer Science

DOI 10.1007/978-3-642-02457-3_65

Date Added Thursday January 20, 2011 2:36:54 pm

Modified Thursday January 20, 2011 2:38:28 pm

Tags:

aw:added, content, frameworks, quality, review, social media

Notes:

Abstract: Presented "a comprehensive review" of 19 content quality assessment frameworks that could be applied to social media, also proposing where such frameworks could potentially be improved (p. 791). Common dimensions in these frameworks included (in order of frequency) user feedback, amount of data, reputation, objectivity, relevancy, reliability, completeness, accuracy, timeliness, understandability, value-added, consistency, security, accessibility, believability, and usefulness. Frameworks came from research on forums, online Q&A services, peer-to-peer applications, review sites, blogs, and wikis, and were evaluated on a set of eight criteria (see pp. 794-795). The article thus provided a high-level view of how the quality of social content has and can be evaluated, rather than focusing tightly on evaluating the quality of any one type of content (such as answers in social Q&A services). [AW]

Contextualizing consumer health information searching: An analysis of questions in a social Q&A community

Type Conference Paper

Author Yan Zhang

Abstract The existing research on consumer health information searching has focused on types of information that users need concerning a particular disease and their querying behavior in general search engines. The context of health information searching, such as people's goals, motivations, and emotions, has received comparatively little attention. Given the significant impact of context on the result of information searching, this study sets out to explore contextual factors of consumer health information searching by analyzing health-related questions that people posted on Yahoo Answers, a social Q&A site. Particularly, we looked at the following factors: linguistic features of the questions that users formulated, their motivations for asking the questions, the time when the questions were asked, and their cognitive representations of the problem space. The results could improve our understanding of consumer health information searching and provide implications for the design of general-purpose health information search engines and consumer health information systems.

Date 2010

Proceedings Title Proceedings of the 1st ACM International Health Informatics Symposium (IHI '10)

Place New York, NY

Publisher ACM

Pages 210–219

DOI 10.1145/1882992.1883023

ISBN 978-1-4503-0030-8

Library Catalog ACM Digital Library

Extra ACM ID: 1883023

Date Added Thursday January 20, 2011 1:44:40 pm

Modified Thursday January 20, 2011 1:45:19 pm

Tags:

aw:added, cognitive, emotional, health questions, linguistic features, motivation, question classification,

question types, social, timing, types of information, yahoo! answers

Notes:

Abstract: Zhang's purpose was to explore the context of consumer health information searching, focusing on health-related questions posted on Yahoo! Answers. She focused on four broad factors: linguistic features of the questions, motivations for asking the questions, when the questions were asked, and how the questions cognitively represented the problem space. The analysis used a random sample of 276 questions across the 23 subcategories of Yahoo! Answers' Health category. Each "question message" was analyzed using content analysis, mostly following an inductive, qualitative open coding methodology; the number of questions in each "question message" and the length of messages were also coded. Linguistic features focused around message length (median 32.5 terms) and the density of questions per message (mean 1.34 questions). Motivations were grouped into cognitive, social, and emotional categories: dissatisfaction with healthcare professionals (cognitive), help with an assignment (cognitive), lack of social support (social), suspicions of previously obtained information (emotional), caring about friends and family (emotional), and worried and disturbed feelings (emotional). Emotional motivations were by far the most common. Zhang broke the timing of questions into eight stages: (a) healthy; (b) might be ill; (c) before a test or checkup; (d) diagnosed or self-diagnosed; (e) before treatment, surgery, or beginning medication; (f) during treatments or while taking medications; (g) after surgery; and (h) chronically ill. Finally, the askers' cognitive representations of their problem spaces included the types of information they requested (symptoms, causes, diagnoses, treatments, prognoses, and other attributes of diseases; drug information; lifestyle information; contacts; and other information), the types of information provided in questions (demographic information such as age, gender, ethnicity, height, and weight; and medical information such as body parts in question, a condition or disease, symptoms, treatments, drugs, and medical history), difficulties with phrasing questions (spelling and terminology issues), and expectations for answers. Zhang discussed her results in light of their implications for consumer health information seeking and searching research and system design. [I know this is long but I wanted to capture the full coding scheme Zhang developed - AW]

Credibility: A multidisciplinary framework

Type	Journal Article
Author	Soo Young Rieh
Author	David R. Danielson
Publication	Annual Review of Information Science and Technology
Volume	41
Issue	1
Pages	307-364
Date	10/2008
Journal Abbr	ARIST
DOI	10.1002/aris.2007.1440410114
ISSN	00664200
Library Catalog	CrossRef
Date Added	Friday January 28, 2011 5:02:08 pm
Modified	Friday January 28, 2011 5:02:19 pm

Tags:

aw:added, credibility, criteria, health resource evaluation, human evaluation, quality, review, Web resources

Notes:

Abstract: Presented a review of the concept of credibility and of how it is evaluated; this abstract focuses particularly on the sections relevant to online health information, particularly sought by younger people. Both the quality of the information itself and the ability of the user to understand it are "significant issues" (p. 331). Strategies for evaluation vary; accuracy is often a primary facet for evaluating information quality, but criteria are diverse and vary from person to person and study to study (as shown by Eysenbach et al., 2002). Online health information sources are often considered of low credibility, quality, and reliability, but other sources can also be inaccurate. Eysenbach and Köhler's (2002) study examined both the evaluation criteria users claimed to use and their actual evaluation practices (see separate abstract). Users' skills in evaluating online health information are not extensive, but are also not well supported by the information sources themselves. Rieh and Danielson also discussed the credibility evaluations of health professionals, evaluation of the Web, evaluation of Web sites as a whole, and evaluation of information on the Web. Criteria in reviewed studies in the latter two categories (pp. 337-339) included text, structure, quality, non-textual items, physical properties, and page features; expertise, goodwill, trustworthiness, depth, and fairness; characteristics of information objects (type, title, content, organization, presentation, graphics, functionality), of sources (domain, type, reputation, number of authors, author credentials), knowledge (domain and system), situation, search ranking, and general assumptions. Of these, evaluations of the source's reputation, type, and credentials have been found to be most important. [AW]

The "Health Science" (pp. 329-333) and "Evaluation of Web Resources" (pp. 333-339) sections are most relevant here.

Criteria for assessing the quality of health information on the Internet

Type Report
Author John Ambre
Author Roger Guard
Author Frances M. Perveiler
Author John Renner
Author Helga Rippen
Report Type White paper
Place Falls Church, VA
Institution Mitretek Systems
Date 14 October 1997
URL http://mlanet.org/tech_is/meb/criteria.pdf
Date Added Friday January 28, 2011 9:46:18 am
Modified Friday January 28, 2011 9:49:12 am

Tags:

health resource evaluation

Notes:**Criteria:**

- **Credibility** (source, context, currency, relevance/utility, editorial review process)
- **Content** (accuracy, hierarchy of evidence, original sources stated, disclaimer, omissions noted)
- **Disclosure** (purpose of site, profiling)
- **Links** (selection, architecture, content, back linkages and descriptions)
- **Design** (accessibility, logical organization, internal search engine)
- **Interactivity** (mechanism for feedback, chat rooms, tailoring)
- **Caveats** (alerts)

Deconstructing interaction dynamics in knowledge sharing communities

Type Conference Paper

Author Ablimit Aji

Author Eugene Agichtein

Abstract Online knowledge sharing sites have recently exploded in popularity, and have began to play an important role in online information seeking. Unfortunately, many factors that influence the effectiveness of the information exchange in these communities are not well understood. This paper is an attempt to fill this gap by exploring the dynamics of information sharing in such sites - that is, identifying the factors that can explain how people respond to information requests. As a case study, we use Yahoo! Answers, one of the leading knowledge sharing portals on the web with millions of active participants. We follow the progress of thousands of questions, from posting until resolution. We examine contextual factors such as the topical area of the questions, as well as intrinsic factors of question wording, subjectivity, sentiment, and other characteristics that could influence how a community responds to an information request. Our findings could be useful for improving existing collaborative question answering systems, and for designing the next generation of knowledge sharing communities.

Date 2010

Proceedings Title Advances in social computing

Place Berlin, Germany

Publisher Springer-Verlag

Volume 6007

Pages 273-281

Series Lecture Notes in Computer Science

DOI 10.1007/978-3-642-12079-4_34

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Modified Thursday January 20, 2011 2:54:05 pm

Tags:

aw:forlater, motivation

e-Health code of ethics

Type Journal Article
Author Helga Rippen
Author Ahmad Risk
Publication Journal of Medical Internet Research
Volume 2
Issue 2
Date May 24, 2000
Journal Abbr JMIR
DOI 10.2196/jmir.2.2.e9
ISSN 1438-8871
URL <http://www.jmir.org/2000/2/e9/>
Library Catalog CrossRef
Date Added Friday January 28, 2011 10:00:29 am
Modified Friday January 28, 2011 10:01:06 am

Tags:

health resource evaluation

Notes:

Criteria:

- **Candor** (disclose financial interests, purpose of site, other financial, professional, personal etc. relationships that could influence perceptions)
- **Honesty** (be truthful, not deceptive; clearly distinguish ads from educational or scientific content)
- **Quality** (evaluate accuracy of information posted; assure info is provided by qualified practitioner; indicate source/basis of info; present controversial issues in fair and balanced way; clear and easy to read language; accommodate special needs / disabled; editorial policies clear; indicate when published, when reviewed, when last updated; cite sources; present criteria used to evaluate content (e.g. editorial board))
- **Informed consent** (disclose risks, data collection policies)
- **Privacy** (disclose privacy policy that takes care to protect, encrypt personal data)
- **Professionalism** (abides by ethical codes; puts patients' and clients' interests first; protects confidentiality; clearly discloses info likely to affect perceptions, fees to be charged; obeys laws; informs patients of limitations of online health care)
- **Responsible partnering** (makes reasonable efforts to ensure partners abide by laws, ethical standards; insists sponsors do not influence search results; indicates whether links are endorsements and when users are leaving the site)
- **Accountability** (includes contact info; allows users to provide feedback; reviews complaints and responds timely and appropriately; monitors compliance with codes of ethics like this one)

Empirical studies assessing the quality of health information for consumers on the

World Wide Web: A systematic review

- Type** Journal Article
- Author** Gunther Eysenbach
- Author** John Powell
- Author** Oliver Kuss
- Author** Eun-Ryoung Sa
- Abstract** Context The quality of consumer health information on the World Wide Web is an important issue for medicine, but to date no systematic and comprehensive synthesis of the methods and evidence has been performed. Objectives To establish a methodological framework on how quality on the Web is evaluated in practice, to determine the heterogeneity of the results and conclusions, and to compare the methodological rigor of these studies, to determine to what extent the conclusions depend on the methodology used, and to suggest future directions for research. Data Sources We searched MEDLINE and PREMEDLINE (1966 through September 2001), Science Citation Index (1997 through September 2001), Social Sciences Citation Index (1997 through September 2001), Arts and Humanities Citation Index (1997 through September 2001), LISA (1969 through July 2001), CINAHL (1982 through July 2001), PsychINFO (1988 through September 2001), EMBASE (1988 through June 2001), and SIGLE (1980 through June 2001). We also conducted hand searches, general Internet searches, and a personal bibliographic database search. Study Selection We included published and unpublished empirical studies in any language in which investigators searched the Web systematically for specific health information, evaluated the quality of Web sites or pages, and reported quantitative results. We screened 7830 citations and retrieved 170 potentially eligible full articles. A total of 79 distinct studies met the inclusion criteria, evaluating 5941 health Web sites and 1329 Web pages, and reporting 408 evaluation results for 86 different quality criteria. Data Extraction Two reviewers independently extracted study characteristics, medical domains, search strategies used, methods and criteria of quality assessment, results (percentage of sites or pages rated as inadequate pertaining to a quality criterion), and quality and rigor of study methods and reporting. Data Synthesis Most frequently used quality criteria used include accuracy, completeness, readability, design, disclosures, and references provided. Fifty-five studies (70%) concluded that quality is a problem on the Web, 17 (22%) remained neutral, and 7 studies (9%) came to a positive conclusion. Positive studies scored significantly lower in search ($P = .02$) and evaluation ($P = .04$) methods. Conclusions Due to differences in study methods and rigor, quality criteria, study population, and topic chosen, study results and conclusions on health-related Web sites vary widely. Operational definitions of quality criteria are needed.
- Publication** JAMA
- Volume** 287
- Issue** 20
- Pages** 2691 -2700
- Date** May 22, 2002
- Journal Abbr** JAMA
- DOI** 10.1001/jama.287.20.2691
- Library Catalog** Highwire 2.0
- Date Added** Friday January 28, 2011 9:51:36 am
- Modified** Friday January 28, 2011 9:52:32 am

Tags:

health resource evaluation

Notes:**Criteria:**

(Based on review of 79 distinct studies found in literature; key categories underlined)

- **Technical criteria** (shown in Table 2, p. 2694)
 - **Disclosure**: authorship, ownership, source, sponsorship/funding source, advertising distinct from contents, statement of purpose, general disclosures
 - **Currency**: creation date, last update/modification date
 - **Authority of source**: author credentials, consulting physician credentials, authors' affiliations
 - **Ease of use**: navigation, search, other categories
 - **Links**
 - **Attribution / documentation**: references, balanced evidence
 - **Contact addresses / feedback**
 - **Editorial review process**
 - **Miscellaneous** (disclaimers, copyright notes, evidence hierarchy, confidentiality/privacy, other)
- **Design** (and aesthetics, including images and illustrations)
- **Readability** (formulas, subjective ratings; technical legibility less used)
- **Accuracy**
- **Completeness** (or comprehensiveness, coverage, scope)

Related

- Usability of quality measures for online health information: Can commonly used technical quality criteria be reliably assessed?

Evaluating and predicting answer quality in community QA

Type Conference Paper

Author Chirag Shah

Author Jefferey Pomerantz

Abstract Question answering (QA) helps one go beyond traditional keywords-based querying and retrieve information in more precise form than given by a document or a list of documents. Several community-based QA (CQA) services have emerged allowing information seekers pose their information need as questions and receive answers from their fellow users. A question may receive multiple answers from multiple users and the asker or the community can choose the best answer. While the asker can thus indicate if he was satisfied with the information he received, there is no clear way of evaluating the quality of that information. We present a study to evaluate and predict the quality of an answer in a CQA setting. We chose Yahoo! Answers as such CQA service and selected a small set of questions, each with at least five answers. We asked Amazon Mechanical Turk workers to rate the quality of each answer for a given question based on 13 different criteria. Each answer was rated by

five different workers. We then matched their assessments with the actual asker's rating of a given answer. We show that the quality criteria we used faithfully match with asker's perception of a quality answer. We furthered our investigation by extracting various features from questions, answers, and the users who posted them, and training a number of classifiers to select the best answer using those features. We demonstrate a high predictability of our trained models along with the relative merits of each of the features for such prediction. These models support our argument that in case of CQA, contextual information such as a user's profile, can be critical in evaluating and predicting content quality.

Date 2010
Proceedings Title Proceedings of the 33rd international ACM SIGIR conference on research and development in information retrieval (SIGIR '10)
Place New York, NY
Publisher ACM
Pages 411–418
DOI 10.1145/1835449.1835518
ISBN 978-1-4503-0153-4
Library Catalog ACM Digital Library
Extra ACM ID: 1835518
Date Added Wednesday January 19, 2011 10:33:01 am
Modified Wednesday January 19, 2011 10:33:45 am

Tags:

answer classification, answer evaluation, answer quality prediction, automated evaluation, aw:added, human evaluation, Mechanical Turk, quality, social answers, yahoo! answers

Notes:

Abstract: Evaluated and predicted the quality of answers in social Q&A services. A selection of 120 questions were chosen from Yahoo! Answers, choosing five answers each (the one marked "best" and four random others) for a total of 600 answers. Participants using Amazon's Mechanical Turk evaluated the quality of each answer for a given question on 5-point Likert scales for 13 different criteria sourced from Zhu, Bernhard, and Gurevych (2009): informativeness, politeness, completeness, readability, relevance, conciseness, trust, detail, originality, impartiality, novelty, helpfulness, and expertise. Five evaluators examined each answer. The paper's abstract mentioned a comparison of the questioner's rating of the answers as high quality—defined as both marking as "best" and giving a rating of 3/5 or higher—against the Mechanical Turk evaluations, but this was not evident in the paper. The researchers did develop and train two classifying algorithms based on the 13 criteria and additional data on the questions, answers, and users (see sec. 5.1, p. 415, for a list), respectively. The latter model outperformed the former. Answer-based features were found to have most significance; the number of comments, existence of references within answers, and stars received by the asker were the least significant features. [I found this disappointing to be honest - AW]

Evaluating health answers in a social Q&A site

Type Conference Paper

Author Soojung Kim

Author Sanghee Oh

Author Jung Sun Oh

Date 06/2009

Proceedings Title Proceedings of the American Society for Information Science and Technology

Volume 45

Pages 1-6

DOI 10.1002/meet.2008.14504503134

Library Catalog CrossRef

Date Added Wednesday January 19, 2011 10:41:53 am

Modified Wednesday January 19, 2011 10:43:27 am

Tags:

answer evaluation, aw:added, best answers, comments, health, human evaluation, question askers, social answers, social q&a, taxonomy, yahoo! answers

Notes:

Abstract: The authors perceived a gap in research on the evaluation of answers to questions posted by members of online health communities. To fill the gap, they conducted a study of the criteria questioners used when evaluating answers in social Q&A sites. They applied a preliminary evaluation framework they developed previously (Kim, Oh, & Oh, 2007) which contained 7 overall categories—content, cognitive, socio-emotional, extrinsic, information source, utility, and general statement—with 24 individual criteria within them. 700 "best answer" comments were randomly sampled from questions posed in Yahoo! Answers health category during January 2008, with 369 of these used in analysis (the remainder were discarded due to lack of meaning or depth). Utility (27%), socio-emotional value (26.2%), and general statements (24.6%) were the most frequent categories; solution feasibility (20.2%) was by far the most frequent individual criteria, with effectiveness (6.8%), agreement (6.8%), emotional support (6.0%), and affect (5.0%) being the next most frequent. Comparing against their previous study across categories, the research noted that utility was more important and content value less important within the health category. [AW]

Exploring characteristics and effects of user participation in online social Q&A sites

Type Journal Article

Author Chirag Shah

Author Jung Sun Oh

Author Sanghee Oh

Publication First Monday

Volume 13

Issue 9

Date 9/1/08

URL <http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/2182/2028>

Date Added Friday January 7, 2011 10:55:00 am

Modified Wednesday January 12, 2011 10:35:46 am

Tags:

comparison, google answers, participation, social q&a, yahoo! answers

Notes:

Abstract: The authors argued that "one of the most important factors" in a successful online Q&A site "is user participation." They discussed and compared two online Q&A sites, Google Answers and Yahoo! Answers, focusing particularly on the role of users as contributors or consumers in each. The authors collected and quantitatively analyzed data from both sites on questions, answers, and profiles to gain a richer picture of the nature and quality of user participation of each service and the role of users in each. Participation in Yahoo! Answers, the more successful service, was further evaluated based on the numbers of questions asked and answers given by each user, measured on the seven levels of user used by the site. Contributions were also evaluated based on the average number of stars (interesting answers), best answers, and total answers for users of each level. The authors concluded that the more social Q&A model employed by Yahoo! Answers implicitly encouraged users to be active members and actively contribute answers to questions. Google Answers, meanwhile, failed due to its lower number of contributors (and higher percentage of consumers), less social nature, and restricted reward structure. [AW]

Factors affecting the provision of consumer health information in public libraries: The last five years

Type Journal Article

Author Mary L. Gillaspay

Abstract Between 2000 and 2005 several changes have created an impact on libraries that provide consumer health information to the public. They include increased Internet connectivity; quality and amount of consumer health information available; realization that American lifestyles are leading to health problems; maturation of the consumer health movement and greater acceptance of it among health care professionals; emphasis on health literacy; and September 11th. Some changes were notable in 2000 but remain issues for providers of consumer health information. They include the number of health news items available in all media; the aging baby boomers and their impact on health care financing; less time for physicians and nurses to provide health information and patient education during regular office visits; and the popularity of complementary therapies. The impact of these issues on the provision of health information in U.S. public libraries is discussed.

Publication Library Trends

Volume 53

Issue 3

Pages 480-495

Date Winter 2005

Journal Abbr LT

Date Added Wednesday March 2, 2011 11:31:15 am

Modified Wednesday March 2, 2011 11:32:37 am

Tags:

9/11, baby boomers, collection development, complementary therapies, consumer health information, evaluation, health literacy, Internet, media, programming, public libraries, quality, stress

Notes:

Abstract: The author, following up on earlier discussion of consumer health services in public libraries (Gillaspy, 2001), presented recent trends that had impact upon these services. These included the (a) increasing ubiquity of the Internet, requiring fast, reliable Internet access in public libraries; (b) greater amounts of consumer health information available, generally of higher quality but still requiring patron education in evaluation and provide lay-language health reference books; (c) increasing awareness of health and lifestyle issues across generations, requiring collection development and programming for all ages; (d) maturation and greater acceptance of consumer health information as a "movement" (p. 484), requiring collections to have a variety of levels and formats of content; (e) greater emphasis placed on the low levels of health literacy in the US, requiring easy-to-read health materials and continuing adult literacy programs to be provided; and (f) September 11th attacks, causing greater stress to patrons that public libraries can help reduce through programming, information, and collection development. Other issues previously identified were also important, including the (a) greater coverage of health in the media, requiring patrons to understand how to evaluate scientific studies and media coverage thereof; (b) aging of baby boomers, requiring public libraries to know how best to serve this aging population; (c) lack of time on the part of physicians and nurses, requiring guidance of consumers to other trusted sources; and (d) popularity of complementary (or "alternative") therapies, requiring informative Web sites and databases on these treatments to be provided. [AW]

Facts or friends? Distinguishing informational and conversational questions in social Q&A sites

Type Conference Paper

Author F. Maxwell Harper

Author Daniel Moy

Author Joseph A. Konstan

Abstract Tens of thousands of questions are asked and answered every day on social question and answer (Q&A) Web sites such as Yahoo Answers. While these sites generate an enormous volume of searchable data, the problem of determining which questions and answers are archival quality has grown. One major component of this problem is the prevalence of conversational questions, identified both by Q&A sites and academic literature as questions that are intended simply to start discussion. For example, a conversational question such as "do you believe in evolution?" might successfully engage users in discussion, but probably will not yield a useful web page for users searching for information about evolution. Using data from three popular Q&A sites, we confirm that humans can reliably distinguish between these conversational questions and other informational questions, and present evidence that conversational questions typically have much lower potential archival value than informational questions. Further, we explore the use of machine learning

techniques to automatically classify questions as conversational or informational, learning in the process about categorical, linguistic, and social differences between different question types. Our algorithms approach human performance, attaining 89.7% classification accuracy in our experiments.

Date 2009
Proceedings Title Proceedings of the 27th international Conference on Human Factors in Computing Systems (CHI '09)
Place New York, NY
Publisher ACM
Pages 759-768
DOI 10.1145/1518701.1518819
Date Added Friday January 7, 2011 10:55:00 am
Modified Wednesday January 12, 2011 10:12:48 am

Tags:

answerbag, ask metafilter, automated evaluation, human evaluation, question evaluation, question types, social q&a, trained coders, yahoo! answers

Notes:

Abstract: Examined the evaluation of whether questions on social Q&A sites are informational—intended to obtain fact- or advice-oriented answers—or conversational—intended to stimulate discussion. The authors collected data from Yahoo! Answers, AnswerBag, and Ask Metafilter, employing 30 coders who used an online coding tool to classify questions and evaluate their writing quality and archival value on five-point Likert scales. Humans were able to reliably distinguish between the two types of questions (2/2 coders agreed on 87.1% of questions, and 3/4 coders agreed on a further 8.2% of questions), writing quality was deemed better for informational questions (intercoder reliability of 74.4%), and conversational questions were deemed of lower archival value than informational questions (intercoder reliability of 70.4%). The authors also developed an algorithm to classify questions, using machine learning techniques and characteristics such as category, word use, and users' social networks. An accuracy (effectively inter-coder reliability) rate of 89.7% was obtained, similar to that of human coders. [AW]

Finding high-quality content in social media

Type Conference Paper
Author Eugene Agichtein
Author Carlos Castillo
Author Debora Donato
Author Aristides Gionis
Author Gilad Mishne
Date 2008
Proceedings Title the International Conference on Web Search and Web Data Mining
Place New York, NY

Publisher ACM

URL 3645469440p183-agichtein.pdf

Date Added Friday January 7, 2011 10:55:26 am

Modified Friday January 7, 2011 10:55:26 am

Tags:

algorithm, answer evaluation, automated evaluation, feedback, quality, relevance, relevance prediction, social answers, social media, yahoo! answers

Notes:

Abstract: The authors examined ways to identify high quality content on social media sites through various forms of community feedback, using Yahoo! Answers "as a test case" (p. 183). Their focus was on determining which elements of feedback would best facilitate automated discovery of high-quality content, how these factors related to each other, and how comparable this automated discovery was to the judgment of human experts. The researchers developed a framework for combining and classifying feedback from multiple sources within the system, consisting of numerous measures of intrinsic content quality (textual and semantic), the relationships and interactions between content creators and users (expressed in the form of a graph), and content usage statistics. This framework was adjustable and tunable as needed—discussed at significant length by the authors—for a given type of social media or particular conception of quality. In Yahoo! Answers, the framework was able to discern those questions and answers of high quality—from a sample of 6,665 questions and 8,366 answers—with an accuracy level close to that of human judges for answer quality. [Note that I found this fairly dense and so my understanding of this paper may not be full - AW]

Finding the right facts in the crowd: Factoid question answering over social media

Type Conference Paper

Author Jiang Bian

Author Yandong Liu

Author Eugene Agichtein

Author Hongyuan Zha

Abstract Community Question Answering has emerged as a popular and effective paradigm for a wide range of information needs. For example, to find out an obscure piece of trivia, it is now possible and even very effective to post a question on a popular community QA site such as Yahoo! Answers, and to rely on other users to provide answers, often within minutes. The importance of such community QA sites is magnified as they create archives of millions of questions and hundreds of millions of answers, many of which are invaluable for the information needs of other searchers. However, to make this immense body of knowledge accessible, effective answer retrieval is required. In particular, as any user can contribute an answer to a question, the majority of the content reflects personal, often unsubstantiated opinions. A ranking that combines both relevance and quality is required to make such archives usable for factual information retrieval. This task is challenging, as the structure and the contents of community QA archives differ significantly from the web setting. To address this problem we present a general ranking framework for

factual information retrieval from social media. Results of a large scale evaluation demonstrate that our method is highly effective at retrieving well-formed, factual answers to questions, as evaluated on a standard factoid QA benchmark. We also show that our learning framework can be tuned with the minimum of manual labeling. Finally, we provide result analysis to gain deeper understanding of which features are significant for social media search and retrieval. Our system can be used as a crucial building block for combining results from a variety of social media content with general web search results, and to better integrate social media content for effective information access.

Date 2008
Proceedings Title Proceedings of the 17th international conference on the World Wide Web (WWW '08)
Place New York, NY
Publisher ACM
Pages 467–476
DOI 10.1145/1367497.1367561
ISBN 978-1-60558-085-2
Library Catalog ACM Digital Library
Extra ACM ID: 1367561
Date Added Wednesday January 19, 2011 4:10:46 pm
Modified Wednesday January 19, 2011 4:11:22 pm

Tags:

algorithm, answer retrieval, automated evaluation, aw:added, evaluative metadata, relevance prediction, social answers, yahoo! answers

Notes:

Abstract: The researchers argued that the body of past questions and answers in social Q&A sites is valuable for retrieval purposes, but that finding the best, highest-quality previous answers is a challenging task. They presented a general ranking framework ("GBRanking") for ranking the quality of answers in such sites, based in the overall structure of Yahoo! Answers. Textual features of questions, answers, and queries; statistical features of these; and social features (based in evaluative metadata) were extracted (as listed in their Table 1, p. 471). They then tested their framework and algorithm using factoid questions from the TREC QA track, selecting 1,250 questions that had at least one similar question in Yahoo! Answers. Up to ten of the highest-ranked questions, along with all of their answers, were retrieved from Yahoo! Answers for each TREC question query. These were split into training data (400 questions) and testing data (850 questions); results found the framework and algorithm to be more effective in retrieving well-formed, factual, high quality answers than baseline methods, particularly Yahoo! Answers' own ranking methods. [AW]

Health information: Does quality count for the consumer?

Type Journal Article
Author Lyndsay A. Marshall

Author Dorothy Williams

Abstract An aspect of the information literacy of health information consumers is explored, in particular whether and how they evaluate the quality of health information on the Internet and in printed formats. A total of 32 members of patient support groups in North-East Scotland were recruited to take part in information review groups (a variation of focus group methodology) where discussion focused on a set of health information materials. Data analysis revealed 15 ways in which the participants evaluated quality. The two most important indicators of quality were organizational authority and the use of plain language. They did not find many of the indicators of evidence-based information. Participants demonstrated lack of confidence about their ability to select quality health information and relied on preselection by authoritative sources (libraries, support groups, health professionals) and distrusted the Internet.

Publication Journal of Librarianship and Information Science

Volume 38

Issue 3

Pages 141 -156

Date 2006

DOI 10.1177/0961000606066575

Library Catalog Highwire 2.0

Date Added Thursday February 3, 2011 10:13:09 am

Modified Thursday February 3, 2011 10:13:30 am

Tags:

aw:added, booklets, criteria, focus groups, health consumers, health resource evaluation, human evaluation, information review groups, leaflets, print resources, Web resources

Notes:

Abstract: The authors explored whether consumers of health information evaluate the quality of health information—both online and in print—and if so, how. 32 members of patient support groups took part in information review groups (similar to focus groups) where they discussed a set of health resources (printed Web pages, leaflets, and booklets). Fifteen criteria for evaluating quality emerged: authority of source, plain English language, sources and contacts for further information, attractive colorful design, appropriateness, graphics, currency, balance between benefits and risks, questions to ask medical staff, alternative formats, simple and logical layout, legible font, comparison with previous knowledge, comparison with other sources, and place where the information was accessed. Authority and plain language were determined to be the most important, followed by sources and contacts, colorful design, and appropriateness. Descriptions are given of the discussion of each criteria in the information review groups. The researchers noted that very few evidence-based indicators were included, and that participants demonstrated a lack of confidence in evaluating the quality of health information. [AW]

How do consumers search for and appraise health information on the World Wide Web? Qualitative study using focus groups, usability tests, and in-depth interviews

Type Journal Article

Author Gunther Eysenbach

Author Christian Köhler

Abstract Objectives: To describe techniques for retrieval and appraisal used by consumers when they search for health information on the internet. Design: Qualitative study using focus groups, naturalistic observation of consumers searching the world wide web in a usability laboratory, and in-depth interviews. Participants: A total of 21 users of the internet participated in three focus group sessions. 17 participants were given a series of health questions and observed in a usability laboratory setting while retrieving health information from the web; this was followed by in-depth interviews. Setting: Heidelberg, Germany. Results: Although their search technique was often suboptimal, internet users successfully found health information to answer questions in an average of 5 minutes 42 seconds (median 4 minutes 18 seconds) per question. Participants in focus groups said that when assessing the credibility of a website they primarily looked for the source, a professional design, a scientific or official touch, language, and ease of use. However, in the observational study, no participants checked any “about us” sections of websites, disclaimers, or disclosure statements. In the post-search interviews, it emerged that very few participants had noticed and remembered which websites they had retrieved information from. Conclusions: Further observational studies are needed to design and evaluate educational and technological innovations for guiding consumers to high quality health information on the web. What is already known on this topic Little is known about how consumers retrieve and assess the quality of health information on the internet Qualitative data are needed to design educational and technological innovations to guide consumers to high quality health information What this study adds Users of the internet explore only the first few links on general search engines when seeking health information Consumers say that when assessing the credibility of a site they primarily look for the source, a professional design, and a variety of other criteria In practice, internet users do not check the “about us” sections of websites, try to find out who authors or owners of the site are, or read disclaimers or disclosure statements Very few internet users later remember from which websites they retrieved information or who stood behind the sites What is already known on this topic Little is known about how consumers retrieve and assess the quality of health information on the internet Qualitative data are needed to design educational and technological innovations to guide consumers to high quality health information What this study adds Users of the internet explore only the first few links on general search engines when seeking health information Consumers say that when assessing the credibility of a site they primarily look for the source, a professional design, and a variety of other criteria In practice, internet users do not check the “about us” sections of websites, try to find out who authors or owners of the site are, or read disclaimers or disclosure statements Very few internet users later remember from which websites they retrieved information or who stood behind the sites

Publication BMJ

Volume 324

Issue 7337

Pages 573 -577

Date March 09 , 2002

DOI 10.1136/bmj.324.7337.573

Library Catalog Highwire 2.0

Date Added Tuesday February 1, 2011 9:45:42 am

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Tags:

aw:added, criteria, focus groups, health consumers, health resource evaluation, human evaluation, interviews, observations, usability testing, Web resources

Notes:

Abstract: The researchers used focus groups (n=21), observation of usability testing (n=17), and interviews (n=17, immediately after usability testing) to examine how consumers sought and evaluated health information on the Web. The usability testing used questions from the Heidelberg Database of Patient Questions, "an anonymized repository of health related questions asked by consumers on the [I]nternet to an 'ask the doctor' service" (p. 574), as tasks. Evaluation criteria that participants mentioned using included source authority, site layout and appearance, advertising type, readability, outbound links, picture of the site owner, e-mail feedback links, site owner's credentials and qualifications, last updated date, and quality seal and third party endorsements. However, in the observations participants did not look at information about the site, disclosures, or disclaimers. In addition, interviewees had a hard time remembering which Web sites they had used to find answers, remembering only in 18 of 86 cases (20.9%). The authors also discussed search strategies observed (drawing from search logs), time taken, and success rate. They concluded, due to the limitations of their study, that more observational studies were required to further explore the problem and findings. [AW]

Identifying authoritative actors in question-answering forums: The case of Yahoo! Answers

Type Conference Paper

Author Mohamed Bouguessa

Author Benoit Doumoulin

Author Shengrui Wang

Date 2008

Proceedings Title Knowledge Discovery and Data Mining(KDD'08)

Date Added Friday January 7, 2011 10:55:21 am

Modified Friday January 7, 2011 10:55:21 am

"I'm not sure if that's what their job is": Consumer health information and emerging "healthwork" roles in the public library

Type Journal Article

Author Roma Harris

Author Flis Henwood

Author Audrey Marshall

Author Samantha Burdett

Abstract Members of the public are expected to assume increasing responsibility for their own health and keep themselves informed about health issues. Here we describe a study of library users' and staff members' expectations about the public library's role in supporting citizens' "healthwork." We conducted our research in a public library in the United Kingdom that operates on a model of patron self-service. Data were gathered through in-depth interviews with library patrons and staff members as well as a written survey of patrons who had visited the library because of a health concern. Our findings suggest that the library's users regard the public library as a highly trusted source of health information. The majority of surveyed users were in search of books relevant to their health concern, and more than half were able to locate what they needed on their own. While generally self-sufficient, some of the survey respondents as well as those who took part in the interviews indicated that they had consulted library staff for help, although they appeared uncertain about the level of reference support they should expect. Members of the library's reference desk staff who took part in the interviews expressed frustration over policies that limit the time available to support patron's inquiries, and many lacked training, particularly in online health information resources. The results raise important questions about the emerging "geography of responsibilities" in health-informing work arising from changing information technology and new emphases in health policy.

Publication Reference and User Services Quarterly

Volume 49

Issue 2

Pages 239-252

Date 2010

Date Added Wednesday March 2, 2011 11:43:06 am

Modified Wednesday March 2, 2011 11:45:28 am

Tags:

consumer health information, frustrations, health reference services, healthwork, public libraries, roles

Notes:

Abstract: The researchers conducted a study of patron and staff member expectations about the role of public libraries in supporting the "healthwork" of consumers: broadly-defined health-related information behaviors. Their literature review (pp. 240-241) touched on previous research and on the varying policies in different countries and locations. They noted that, despite few libraries specifically targeting health information, "in practice, many ... do play a role in providing consumer health support" (p. 241). A public library in the UK which operated using a patron self-service model was used as the setting for their study. Mixed methods were used to gather data, specifically interviews with patrons and staff and a patron survey. Results showed that patrons considered the public library and its collection "a highly trusted source of health information" (p. 239)—even though they more often used other sources—and often were able to find what they were looking for by themselves. The library was seen as a beginning step, able to fill information gaps that medical professionals could not. However, some patrons were uncertain about how much help and support they should expect from librarians. In addition, library staff felt frustrated that they could not support patrons better, mostly due to time pressures and lack of training in online health information resources. Many frustrations stemmed from the changing roles of public librarians at this particular library. They also drew the line at giving advice, saying they "only give information" (p. 245). Despite these differences, patrons and library staff shared "considerable common ground in their understanding of the public library's healthwork support role" (p. 250). [AW]

Instruments to assess the quality of health information on the World Wide Web: What can our patients actually use?

- Type** Journal Article
- Author** Elmer V. Bernstam
- Author** Dawn M. Shelton
- Author** Muhammad Walji
- Author** Funda Meric-Bernstam
- Abstract** SummaryObjective: To find and assess quality-rating instruments that can be used by health care consumers to assess websites displaying health information.Data sources: Searches of PubMed, the World Wide Web (using five different search engines), reference tracing from identified articles, and a review of the of the American Medical Informatics Association's annual symposium proceedings.Review methods: Sources were examined for availability, number of elements, objectivity, and readability.Results: A total of 273 distinct instruments were found and analyzed. Of these, 80 (29%) made evaluation criteria publicly available and 24 (8.7%) had 10 or fewer elements (items that a user has to assess to evaluate a website). Seven instruments consisted of elements that could all be evaluated objectively. Of these seven, one instrument consisted entirely of criteria with acceptable interobserver reliability ($\kappa \geq 0.6$); another instrument met readability standards.Conclusions: There are many quality-rating instruments, but few are likely to be practically usable by the intended audience.
- Publication** International Journal of Medical Informatics
- Volume** 74
- Issue** 1
- Pages** 13-19
- Date** January 2005
- DOI** 10.1016/j.ijmedinf.2004.10.001
- ISSN** 1386-5056
- Library Catalog** ScienceDirect
- Date Added** Friday January 28, 2011 11:17:07 am
- Modified** Friday January 28, 2011 5:05:11 pm

Tags:

aw:added, criteria, health consumers, health resource evaluation, human evaluation, instruments, quality, reliability, review, Web resources

Notes:

Abstract: The authors reviewed and assessed instruments intended to be used by users to evaluate online health information, intending to find which instruments could be practically used by consumers. Instruments were found using multiple sources: PubMed, general searches of the Web, citation chaining, and the American Medical Informatics Association's proceedings. 273 distinct instruments were analyzed, of which 80 (29%) made their criteria for evaluation publicly available; 24 (8.7%) had ten or fewer items. Only seven instruments included purely objective criteria, and only one of these met standards for interobserver reliability. Criteria used in the seven instruments (see Table 2, p. 18) included

creation/update date; disclosure of credentials, ownership, authorship, purpose, privacy practices, and advertising/sponsorship; editorial review process; clear references, sources, and links; contact information; copyright notice; payment policies and fees; graphics and multimedia; higher search rank; and multiple viewpoints presented. The authors concluded that few of these instruments would be "practically usable by the intended audience" (p. 13). [AW]

Learning to rank answers on large online QA collections

- Type** Conference Paper
- Author** Mihai Surdeanu
- Author** Massimiliano Ciaramita
- Author** Hugo Zaragoza
- Abstract** This work describes an answer ranking engine for non-factoid questions built using a large online community-generated question-answer collection (Yahoo! Answers). We show how such collections may be used to effectively set up large supervised learning experiments. Furthermore we investigate a wide range of feature types, some exploiting NLP processors, and demonstrate that using them in combination leads to considerable improvements in accuracy.
- Date** June 2008
- Proceedings Title** Proceedings of the 2008 Annual Meeting of the Association of Computational Linguistics (ACL-08)
- Place** Stroudsburg, PA
- Publisher** Association for Computational Linguistics
- Pages** 719-727
- URL** <http://acl.eldoc.ub.rug.nl/mirror/P/P08/P08-1082.pdf>
- Date Added** Wednesday January 19, 2011 4:17:23 pm
- Modified** Wednesday January 19, 2011 4:20:15 pm

Tags:

algorithm, answer ranking, answer retrieval, automated evaluation, aw:added, best answers, quality, social answers, yahoo! answers

Notes:

Abstract: The researchers developed an algorithmic model to rank, by quality, answers to non-factoid questions—"causation, manner, or reason questions" (p. 719)—in social Q&A services. They were interested in whether such a model could be learned from the "noisy" data (p. 720) present in services such as Yahoo! Answers, and in which features were most useful for this learning. They considered four sets of features, based on previous IR studies: (a) similarity between questions and answers; (b) question-to-answer translations; (c) keyword density and frequency; and (d) correlations between Q&A pairs and the Web as a whole. The researchers employed a sample of 142,627 Q&A pairs selected from Yahoo! Answers by narrowing the population to non-factoid "how do" questions with best answers and removing extremely short questions and answers. 60% of the sample was used to train, 20% to develop the model, and 20% to test it. Results showed a 12-20% increase in performance; 50.91% of the best answers ranked first. Translation features provided 60% of the improvement, while keyword density and frequency contributed a further 23%; correlation features accounted for the remaining improvement. The authors

briefly discussed further observations on the operation of their algorithmic model. [AW]

Related

- Learning to rank answers to non-factoid questions from web collections

Learning to rank answers to non-factoid questions from web collections

Type Journal Article

Author Mihai Surdeanu

Author Massimiliano Ciaramita

Author Hugo Zaragoza

Abstract This work investigates the use of linguistically-motivated features to improve search, in particular for ranking answers to non-factoid questions. We show that it is possible to exploit existing large collections of question-answer pairs (from online social Question Answering sites) to extract such features and train ranking models which combine them effectively. We investigate a wide range of feature types, some exploiting natural language processing such as coarse word sense disambiguation, named-entity identification, syntactic parsing and semantic role labeling. Our experiments demonstrate that linguistic features, in combination, yield considerable improvements in accuracy. Depending on the system settings we measure relative improvements of 14% to 21% in Mean Reciprocal Rank and Precision@1, providing one of the most compelling evidence to date that complex linguistic features such as word senses and semantic roles can have a significant impact on large-scale information retrieval tasks.

Publication Computational Linguistics

Date 23 November 2010

URL <http://www.surdeanu.name/mihai/papers/cl11.pdf>

Extra Advance online publication.

Date Added Thursday January 20, 2011 3:25:48 pm

Modified Thursday January 20, 2011 3:29:54 pm

Tags:

algorithm, answer ranking, answer retrieval, automated evaluation, aw:added, best answers, quality, social answers, yahoo! answers

Notes:

Abstract: Reports in greater depth on the study the researchers previously reported in Surdeanu, Ciaramita, and Zaragoza (2008). They developed an algorithmic model to rank, by quality, answers to non-factoid questions—"causation, manner, or reason questions" (p. 1)—in social Q&A services. In this article, the authors discussed in greater depth the linguistic representations of content—words, n-grams, dependencies, semantic roles, degree of lexicalization, labels of relations, and structure size—that were employed in their algorithm. Four sets of features were used, relating to (a) similarity, (b) translation, (c) density and frequency, and (d) Web correlation (these also explained in greater depth here). Sampling and testing was performed as explained in the earlier paper; additional performance and contribution measures were used which showed improvements ranging from 14.32-21.69% and similar contribution results as in the first paper. The authors also provided substantial discussion of errors in their model in this

paper, classifying 50 errors manually into seven categories and exploring the reasons for them. [AW]

Related

- Learning to rank answers on large online QA collections

Modeling information-seeker satisfaction in community question answering

Type Journal Article

Author Eugene Agichtein

Author Yandong Liu

Author Jiang Bian

Abstract Question Answering Communities such as Naver, Baidu Knows, and Yahoo! Answers have emerged as popular, and often effective, means of information seeking on the web. By posting questions for other participants to answer, information seekers can obtain specific answers to their questions. Users of CQA portals have already contributed millions of questions, and received hundreds of millions of answers from other participants. However, CQA is not always effective: in some cases, a user may obtain a perfect answer within minutes, and in others it may require hours—and sometimes days—until a satisfactory answer is contributed. We investigate the problem of predicting information seeker satisfaction in collaborative question answering communities, where we attempt to predict whether a question author will be satisfied with the answers submitted by the community participants. We present a general prediction model, and develop a variety of content, structure, and community-focused features for this task. Our experimental results, obtained from a large-scale evaluation over thousands of real questions and user ratings, demonstrate the feasibility of modeling and predicting asker satisfaction. We complement our results with a thorough investigation of the interactions and information seeking patterns in question answering communities that correlate with information seeker satisfaction. We also explore personalized models of asker satisfaction, and show that when sufficient interaction history exists, personalization can significantly improve prediction accuracy over a “one-size-fits-all” model. Our models and predictions could be useful for a variety of applications, such as user intent inference, answer ranking, interface design, and query suggestion and routing.

Publication ACM Transactions on Knowledge Discovery from Data

Volume 3

Issue 2

Pages 10:1–10:27

Date April 2009

Journal Abbr ACM TKDD

DOI 10.1145/1514888.1514893

ISSN 1556-4681

Library Catalog ACM Digital Library

Extra ACM ID: 1514893

Date Added Wednesday January 19, 2011 4:58:20 pm

Modified Thursday January 27, 2011 10:41:03 am

Tags:

algorithm, answer evaluation, answer quality prediction, automated evaluation, aw:added, human evaluation, Mechanical Turk, personalization, quality, relevance, relevance prediction, social answers, yahoo! answers

Notes:

Abstract: Investigated the prediction of questioner satisfaction in social Q&A communities, expanding and merging the authors' "previous work" (p. 10:3). The researchers developed a prediction model that included features of the question, the relationship between the question and the answers, the user history of the asker, the answerer's reputation, and category-level statistics on questions; these were refined from Liu, Bian, and Agichtein (2008). As in the earlier study, satisfaction required marking an answer as "best" and rating it at least three out of five stars in quality. A random sample of 5,000 recent questions and their answers was taken from five Yahoo! Answers categories. A decision tree-based algorithm outperformed both baseline and human evaluations (the latter generated for 130 questions via Amazon's Mechanical Turk). The most important features for prediction were asker history and category features, specifically most recent rating (14.2%), average past rating (14.0%), membership length (10.2%), average answers received (4.9%), questions resolved (4.9%), average category rating (4.4%), and total answers received (4.3%). The authors also tested personalizing the algorithm for individual users and groups of similar users; both approaches worked well, with group-based outperforming individual-based in most cases. [AW]

Related

- You've got answers: Towards personalized models for predicting success in community question answering
- Predicting information seeker satisfaction in community question answering
- On the evolution of the Yahoo! Answers QA community

NOAH - New York Online Access to Health: Library collaboration for bilingual consumer health information on the Internet

Type Journal Article

Author Susan Voge

Abstract New York Online Access to Health (NOAH) is a Web site that provides accurate, timely, relevant, and unbiased full-text health information in both English and Spanish. A joint project of The City University of New York Office of Library Services, The New York Academy of Medicine Library, the Metropolitan New York Library Council, and The New York Public Library, NOAH brings consumer health information to the public in New York City and around the world via the Internet. NOAH is an example of a successful collaboration among different types of libraries (academic, public, medical society) and voluntary health agencies to use new technologies to reach a very broad public. This paper discusses the involvement of the library partners in terms of the management and funding of the site. Web site construction is described including how the information is gathered and organized. Future plans and funding issues for NOAH are considered in terms of the expected increase in the need for consumer health information. NOAH can be reached at:

www.noah.cuny.edu.

Publication Bulletin of the Medical Library Association
Volume 86
Issue 3
Pages 326-334
Date 1998-7
Journal Abbr Bull Med Libr Assoc
ISSN 0025-7338
Short Title NOAH--New York Online Access to Health
Library Catalog PubMed Central
Extra PMID: 9681167 PMCID: 226378
Date Added Wednesday March 2, 2011 2:18:50 pm
Modified Wednesday March 2, 2011 2:19:58 pm

Tags:

collaboration, consumer health information, digital library, public libraries, Web site

Notes:

Abstract: The author presents the New York Online Access to Health (NOAH) project, which created a Web site to provide consumer health information to the public in New York City. The project was a joint effort of the City University of New York Office of Library Services, the New York Academy of Medicine Public Library, the Metropolitan New York Library Council, and the New York Public Library. She focuses primarily on the management, funding, and construction of the site, beginning in October 1994 and proceeding to just before the article's publication in July 1998. The site specifically included full-text, consumer-friendly materials in both English and Spanish, serving in effect as a consumer health digital library. A part-time medical librarian contributed expertise in indexing, controlled vocabulary, and site selection; eight subject experts were also selected to serve as volunteer content editors once the site got off the ground, recruited via "local librarian e-mail discussion lists and newsletters" (p. 331). The site proved popular, receiving 100,000 users each month by the end of 1997; it was also evaluated via focus groups early in 1996, with many suggestions made being incorporated into NOAH. [AW]

Predicting information seeker satisfaction in community question answering

Type Conference Paper
Author Yandong Liu
Author Jiang Bian
Author Eugene Agichtein
Date 2008
Proceedings Title Proceedings of the 31st annual international ACM SIGIR conference on Research and development in information retrieval (SIGIR '08)
Place New York, NY
Publisher ACM
Pages 483-490

DOI 10.1145/1390334.1390417

Library Catalog CrossRef

Date Added Wednesday January 12, 2011 4:53:21 pm

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Tags:

algorithm, answer evaluation, answer quality prediction, automated evaluation, expert judges, human evaluation, Mechanical Turk, quality, question askers, ratings, relevance, relevance prediction, social answers, yahoo! answers

Notes:

Abstract: This study attempted to algorithmically predict the satisfaction of users of social Q&A services—termed "community question answering (CQA)" or "community QA" by the researchers—with answers to their questions; or in other words, the subjective relevance of the answers. The authors defined satisfaction as the question asker choosing a best answer and providing a rating of at least 3 stars to that answer, and argued that "human assessors have a difficult time predicting asker satisfaction" (p. 483), thus claiming a prediction algorithm was necessary. Inputs included substantial information about the question itself, the relationship between the question and the answers, the user history of the questioner and answerer, and category-level statistics on questions. The model developed was experimentally tested using real questions and user ratings from questioners, Amazon Mechanical Turk participants (90% agreement with questioners), and expert researchers (82% agreement with questioners), and was found to be better at predicting the satisfaction of question askers than the humans. The authors explored which of the inputs contributed most to this performance, finding past ratings by question askers and the askers' and answerers' user histories to be most important. [AW]

Related

- Modeling information-seeker satisfaction in community question answering

Predictors of answer quality in online Q&A sites

Type Conference Paper

Author F. Maxwell Harper

Author Daphne Raban

Author Sheizaf Rafaeli

Author Joseph A. Konstan

Abstract Question and answer (Q&A) sites such as Yahoo! Answers are places where users ask questions and others answer them. In this paper, we investigate predictors of answer quality through a comparative, controlled field study of responses provided across several online Q&A sites. Along with several quantitative results concerning the effects of factors such as question topic and rhetorical strategy, we present two high-level messages. First, you get what you pay for in Q&A sites. Answer quality was typically higher in Google Answers (a fee-based site) than in the free sites we studied, and paying more money for an answer led to better outcomes. Second, we find that a Q&A site's community of users contributes to its success. Yahoo!

Answers, a Q&A site where anybody can answer questions, outperformed sites that depend on specific individuals to answer questions, such as library reference services.

Date April 5-10, 2008
Proceedings Title Proceeding of the 26th annual SIGCHI conference on human factors in computing systems (CHI '08)
Place New York, NY
Publisher ACM
Pages 865-874
DOI 10.1145/1357054.1357191
Date Added Friday January 7, 2011 10:55:29 am
Modified Monday January 17, 2011 8:18:14 pm

Tags:

answer evaluation, digital reference, google answers, human evaluation, quality, question types, social answers, students, windows live QnA, yahoo! answers

Notes:

Abstract: Investigated the quality and characteristics of answers to questions on social Q&A sites, intending to ascertain how question askers could receive better answers. The researchers, employing an experimental design, developed and asked questions in several online Q&A services with different designs: eight public libraries' digital reference services, the Internet Public Library, Google Answers, AllExperts, Yahoo! Answers, and Windows Live QnA. Blind judges (junior and senior English or Rhetoric majors) were used to refine questions prior to their asking and to evaluate the answers received as a set. Questions varied on question topic, question type, prior effort, gratitude, and destination site. Answers were evaluated using nine criteria measured on Likert scales: correctness, confidence, helpfulness, progress towards receiving an answer, monetary worth, degree of personalization, perceived effort, friendliness, and ease of use. Quantitative analysis was also used to compare across variables. The authors found better answers and higher effort resulted from higher cost; a small and marginally significant effect by topic on answer quality; and a highly significant effect by question type on both quality and effort. In addition, the destination site produced significant effects; the quality of answers in Google Answers was higher due to the payment required in order to ask a question, while the Yahoo! Answers community was found to produce higher quality answers than Windows Live QnA (which had a much smaller community) and the expert-driven services. [AW]

Promoting improved access to consumer health information

Type Journal Article
Author Josephine Kaiser
Abstract “Do you have any information on lupus?” “What are the side effects of Prozac?” “I want to find an herbal remedy for arthritis.” Questions such as these are asked each day across the country at public library reference desks. The boom of interest in consumer health, fueled by changes in society and the medical system itself, has strained the infrastructure for dissemination of such information, including at the local public

library. In response to this problem, medical libraries, led by the National Library of Medicine (NLM), have explored methods of partnering with public libraries to provide improved consumer health information for their clientele. Cooperation between medical and public libraries has proven to be quite effective.

Publication Indiana Libraries
Volume 24
Issue 3
Pages 20-22
Date 2005
ISSN 0275777X
URL <http://hdl.handle.net/1805/1411>
Date Added Wednesday March 2, 2011 11:51:08 am
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Tags:

consumer health information, health information services, health reference services, partnership, public libraries

Notes:

Abstract: The author began this short article by noting the "explosion of interest in consumer health information" (p. 20); up to 20% of public library reference questions were now health-related, at least 40% of American Internet users had looked for health information online, and over 70 million Medline searches were conducted by the public. She cited Gillaspys's (2001) discussions of the reasons behind this. Academic, medical, and hospital libraries were thus having to serve non-traditional populations, but public libraries were seen as the best place to meet consumer health information needs. While not abandoning other valued public library services, they would need to provide sufficient funding and staff—and ensure said staff were sufficiently knowledgable in and comfortable with health reference—in order to mount an effective consumer health information service and develop an adequate collection. The author also reviewed partnerships, noting three models were prevalent: "train-the-trainer," collaboratively developed Web site portals, and combinations of the two (p. 21). The author concluded further partnerships, projects, and research studies would "help us achieve our goals of meeting consumers' health information needs" (p. 21). [AW]

Public librarians as a resource for promoting health: Results from the Health for Everyone in Libraries Project (HELP) librarian survey

Type Journal Article
Author Laura A. Linnan
Author Barbara M. Wildemuth
Author Claudia Gollop
Author Peggy Hull
Author Christie Silbajoris
Author Ruth Monnig

Abstract Public libraries are located in all communities, and two thirds of adults visit one each year. Libraries give the public access to computers and the Internet, and librarians offer technical assistance for accessing information. The interests and training needs of public librarians for assisting the public in accessing health information have not been addressed. One public library/librarian in each North Carolina county was randomly selected to complete a written questionnaire to assess health-related information services and librarians' skills for providing these services. 84% of librarians (83/99) completed the questionnaire. Results indicate that librarians answer more than 10 health-related questions per week, feel moderately comfortable answering these questions, and are very interested in receiving additional training for addressing health related questions. Creating public library/public health partnerships holds much promise for enhancing the ability of community members to access desired health information.

Publication Health Promotion Practice

Volume 5

Issue 2

Pages 182-190

Date April 2004

DOI 10.1177/1524839903258018

Date Added Wednesday March 2, 2011 11:33:45 am

Modified Wednesday March 2, 2011 11:36:49 am

Tags:

collaboration, consumer health information, health reference services, health reference skills, partnership, public libraries, survey, training

Notes:

Abstract: The researchers conducted a survey of one librarian ("responsible for reference services," p. 184) from one randomly selected public library in each county in North Carolina, given that "the interests and training needs of public librarians for assisting the public in accessing health information [had] not been addressed" (p. 182). The survey was conducted as part of the "Health for Everyone in Libraries Project" (HELP), "exploring the possibility of addressing public interest in health-related information through a partnership between public libraries and public health education efforts in North Carolina" (p. 184). 83 librarians reported answering an average of 10.3 health-related questions a week, felt moderately comfortable (average 3.5/5) in answering these, and felt they had adequate answering skills (average 3.4/5). Health information was provided to patrons via guided Internet searches (84%), print resources (81%), referring patrons to other organizations (80%), and unassisted Internet access (79%). Librarians were also interested in receiving further training, particularly in health information/resources (77%), matching patron needs with resources (60%), and ethical issues (57%). Librarians felt regional (63%) and local (58%) workshops were the best environments for training. The researchers believed the active engagement of public librarians in health information services and their desire for additional training created a need for partnerships to train librarians and enhance consumer health information services in public libraries. [AW]

Public libraries and health literacy

Type Book Section
Editor Marge Kars
Editor Lynda Baker
Editor Feleta L Wilson
Author Barbara Bibel
Book Title The Medical Library Association guide to health literacy
Place New York, NY
Publisher Neal-Schuman Publishers
Date 2008
Pages 197-208
ISBN 1555706258
Library Catalog fs.aleph.fcla.edu Library Catalog
Call Number Z675.M4 M497 2008
Date Added Wednesday March 2, 2011 2:23:22 pm
Modified Wednesday March 2, 2011 2:24:26 pm

Tags:

audience, collaboration, collection development, community awareness, health literacy, outreach, partnership, public libraries, training

Notes:

Abstract: The author discussed how librarians in public libraries have responded and can respond to the challenge of health literacy, particularly in terms of collection development, community awareness, and collaborative partnerships. She first noted how public librarians often serve patrons with health information needs, and must be ready to provide help to patrons and, especially, to "play a vital role in promoting health literacy" (p. 198). To be able to do this, she argued that public libraries must (a) know their audience, specifically the demographics of the communities they serve; (b) develop "a strong," up to date "collection of [consumer] health and medical information" (p. 199), including a wide variety of sources (she made some suggestions); (c) have their librarians partake in appropriate training and be able to train others in consumer health information seeking and evaluation; (d) collaborate and partner with local medical and health science libraries, as well as within their ranks to promote health literacy; and (e) perform outreach by holding classes, providing a health information page on their Web site, and participating in health fairs, community meetings, and similar events and organizations. She concluded by stressing the importance of public libraries' "role in providing health information and promoting health literacy" (p. 204), and thus the importance of librarians' facilitation of this role. [AW]

Public library consumer health information pilot project: Results of a National Library of Medicine evaluation

Type Journal Article
Author Fred B. Wood
Author Becky Lyon
Author Mary Beth Schell

Author Paula Kitendaugh

Author Victor H. Cid

Author Elliot R. Siegel

Abstract In October 1998, the National Library of Medicine (NLM) launched a pilot project to learn about the role of public libraries in providing health information to the public and to generate information that would assist NLM and the National Network of Libraries of Medicine (NN/LM) in learning how best to work with public libraries in the future. Three regional medical libraries (RMLs), eight resource libraries, and forty-one public libraries or library systems from nine states and the District of Columbia were selected for participation. The pilot project included an evaluation component that was carried out in parallel with project implementation. The evaluation ran through September 1999. The results of the evaluation indicated that participating public librarians were enthusiastic about the training and information materials provided as part of the project and that many public libraries used the materials and conducted their own outreach to local communities and groups. Most libraries applied the modest funds to purchase additional Internet-accessible computers and/or upgrade their health-reference materials. However, few of the participating public libraries had health information centers (although health information was perceived as a top-ten or top-five topic of interest to patrons). Also, the project generated only minimal usage of NLM's consumer health database, known as MEDLINEplus, from the premises of the monitored libraries (patron usage from home or office locations was not tracked). The evaluation results suggested a balanced follow-up by NLM and the NN/LM, with a few carefully selected national activities, complemented by a package of targeted activities that, as of January 2000, are being planned, developed, or implemented. The results also highlighted the importance of building an evaluation component into projects like this one from the outset, to assure that objectives were met and that evaluative information was available on a timely basis, as was the case here.

Publication Bulletin of the Medical Library Association

Volume 88

Issue 4

Pages 314-322

Date 2000-10

Journal Abbr Bull Med Libr Assoc

ISSN 0025-7338

Short Title Public library consumer health information pilot project

Library Catalog PubMed Central

Extra PMID: 11055298 PMCID: 35252

Date Added Wednesday March 2, 2011 11:23:17 am

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Tags:

consumer health information, evaluation, National Library of Medicine, NLM, public libraries

Notes:

Abstract: The authors presented the results of a 1998-1999 evaluation of a National Library of Medicine (NLM) pilot project intended to explore the role of public libraries in providing consumer health

information to the public and meeting consumer health information needs, with an eye to how the NLM and public libraries could better work together. 41 public libraries or library systems from nine states and D.C. were selected to participate. The evaluation employed both quantitative (log analysis) and qualitative (patron and librarian focus groups, librarian feedback and interviews, site visits) measures. The evaluation results indicated public librarians were enthusiastic about the project, particularly the training (at health science libraries) and information provided, and often conducted local outreach of their own. Funds were also used to purchase Internet workstations and upgrade health reference collections. However, few of the public libraries had specific health information services or centers, despite health information being a highly-rated topic of patron interest, and librarians were not always comfortable with providing health reference services. No noticeable increases were reported in health reference or ILL requests. The authors made suggestions for improvements NLM could make. These included offering more training, especially Web-based; producing and distributing additional promotional and educational materials; sponsor or fund projects, research, and usability testing; and become more active in public library associations and conferences. [AW]

Quality-aware collaborative question answering: Methods and evaluation

Type Conference Paper

Author Maggy Anastasia Suryanto

Author Ee Peng Lim

Author Aixin Sun

Author Roger H. L Chiang

Abstract Community Question Answering (QA) portals contain questions and answers contributed by hundreds of millions of users. These databases of questions and answers are of great value if they can be used directly to answer questions from any user. In this research, we address this collaborative QA task by drawing knowledge from the crowds in community QA portals such as Yahoo! Answers. Despite their popularity, it is well known that answers in community QA portals have unequal quality. We therefore propose a quality-aware framework to design methods that select answers from a community QA portal considering answer quality in addition to answer relevance. Besides using answer features for determining answer quality, we introduce several other quality-aware QA methods using answer quality derived from the expertise of answerers. Such expertise can be question independent or question dependent. We evaluate our proposed methods using a database of 95K questions and 537K answers obtained from Yahoo! Answers. Our experiments have shown that answer quality can improve QA performance significantly. Furthermore, question dependent expertise based methods are shown to outperform methods using answer features only. It is also found that there are also good answers not among the best answers identified by Yahoo! Answers users.

Date 2009

Proceedings Title Proceedings of the 2nd ACM international conference on Web Search and Data Mining (WSDM '09)

Place New York, NY

Publisher ACM

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ISBN 978-1-60558-390-7

Library Catalog ACM Digital Library

Extra ACM ID: 1498820

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Tags:

algorithm, automated evaluation, aw:added, aw:toread, human evaluation, quality, question retrieval, relevance, social q&a, students, yahoo! answers

Notes:

Abstract: Proposed a framework and tested algorithms based on it to select answers of high quality and high relevance from Yahoo! Answers. The researchers' framework assigned relevance scores to each question and quality scores to each answer of a question. To measure quality of answers, they used eight of the thirteen features proposed by Jeon et al. (2006): proportion of best answers given by answerer, answer length, number of stars, number of answers provided by answerer, number of categories the answerer is a top contributor for, number of times answer was recommended, number of times it was disrecommended, and number of answers for the question. They also added one feature, the number of points for the answerer. They tested their framework using a collection of 95,368 questions and 537,491 answers from Yahoo! Answers; training used 50 popular queries from the Computers and Internet category, for each of which engineering undergraduates evaluated the best answers of the top 20 questions for relevance and quality. The researchers found that answer quality improved selection performance significantly, particularly when both question and answer features were included. In addition, they found many "good" answers that were not marked as the "best" answers by question askers and the Yahoo! Answers community. [Note: the article was quite dense and mathematical, thus hard to follow and summarize at times. I believe I have caught most of the important points. - AW]

Question types in social Q&A sites

Type Journal Article

Author F. Maxwell Harper

Author Joseph Weinberg

Author John Logie

Author Joseph A. Konstan

Abstract Social question and answer (Q&A) Web sites field a remarkable variety of questions: while one user seeks highly technical information, another looks to start a social exchange. Prior work in the field has adopted informal taxonomies of question types as a mechanism for interpreting user behavior and community outcomes. In this work, we contribute a formal taxonomy of question types to deepen our understanding of the nature and intent of questions that are asked online. Our taxonomy is grounded in Aristotelian rhetorical theory, and complemented by contributions of leading twentieth century rhetorical theorists. This taxonomy offers a way to differentiate between similar-sounding questions, while remaining flexible enough to encompass the wide range of questions asked online. To ground the taxonomy in reality, we code questions drawn from three popular social Q&A sites, and report on the distributions of several objective and subjective measures.

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Volume 15
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Journal Abbr FM
URL <http://firstmonday.org/htbin/cgiwrap/bin/ojs/index.php/fm/article/viewArticle/2913/2571>
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Modified Thursday January 20, 2011 1:47:10 pm

Tags:

answerbag, ask metafilter, aw:added, question evaluation, question quality, question types, rhetorical theory, taxonomy, yahoo! answers

Notes:

Abstract: The authors argued that prior work adopted informal taxonomies of question types, but that formalization and a reduction in complexity was necessary. To that end, they contributed a taxonomy developed collaboratively and grounded in Aristotelian rhetorical theory, with the intention of deepening understanding of the nature and intent of questions in social Q&A sites. Their taxonomy contained six categories, two for each Aristotelian rhetoric species: advice (seeking guidance) and identification (cultivating conversation and building relationships) were deliberative (future-focused), seeking (dis)approval (more subjectively) and seeking quality judgments (more objectively)—both opinion-gathering—were epideictic (present-focused), and seeking prescriptive or factual answers were forensic (past-focused). An example of each type was provided (see their Table 1). The authors also self-coded 100 questions from each of three popular social Q&A sites—Yahoo! Answers, Answerbag, and Ask Metafilter—and analyzed the results. Factual and identification questions were most common (31% and 28%, respectively), while quality (7%) and (dis)approval (5%) were least common, although distributions varied between sites. Advice questions were significantly longer and more likely to be compound. The authors also had seven undergraduates code the questions for quality on dimensions of archival value, personalization, and need for coaching/revision. Archival value was lowest for identification and (dis)approval questions, personalization highest for advice questions and lowest for factual questions, and prescriptive questions needed rewriting significantly more often. [AW]

Questioners' credibility judgments of answers in a social question and answer site

Type Journal Article
Author Soojung Kim
Abstract Introduction. This paper explores a sample of thirty-six active users' experience of credibility judgments in Yahoo! Answers, the most popular social question and answer site in the U.S., to understand how users evaluate the credibility of answers provided by fellow users on the Web. Method. Interviews were conducted with thirty-six questioners of Yahoo! Answers by e-mail, Internet chat and telephone. Analysis. The interviews were transcribed and the data were analysed using the constant-comparison method of content analysis. Results. The questioners' credibility judgments in the site link to a broad context of an information seeking process, including pre-search

activities and post-search verification behaviour. Many message- and source-related criteria from previous Web credibility research transfer to the social question and answer environment, but Website-related criteria do not apply here because questioners evaluate answerers in the same site. Also, the questioners evaluated message credibility more often than source credibility due to the frequent unavailability of source information. Conclusions. Many questioners exhibited critical evaluation skills at least to some extent. An improved design of the site and user instruction, however, could further help questioners and answerers find or provide credible information.

Publication Information Research
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Date March 2010
URL <http://informationr.net/ir/15-2/paper432.html>
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Modified Wednesday January 19, 2011 10:58:23 am

Tags:

answer evaluation, aw:added, credibility, human evaluation, interviews, quality, question askers, social answers, users, yahoo! answers

Notes:

Abstract: The researcher conducted semi-structured, critical incident-based interviews (by e-mail, chat, and telephone) of 36 semi-randomly selected users who had asked questions on Yahoo! Answers, intending to further a broad, contextual understanding of how users evaluate the credibility of social answers. The study explored evaluations of the credibility of answers and the entire site, verifying answers, and motivations for using the site, as part of a larger project. Opinions on overall credibility of Yahoo! Answers were mixed (31% highly favorable, 42% cautious, 28% skeptical). 22 specific criteria were identified (listed separately) as used to evaluate questions and grouped into three categories: message criteria (55%), source criteria (32%), and others (13%). Logic/plausibility, spelling and grammar, layout, perceived expertise, and verifiability were the most common criteria used, the order differing between informational and conversational questions; references to external sources were also considered important, but were often unavailable. Users did not always evaluate credibility, however. Findings on motivations (varied with different question types) and verification (43% for informational questions, 15% for conversational) were also discussed. Overall, findings partially overlapped with previous studies, but topicality was a new dimension uncovered, social and collaborative criteria were more important, and many Web site-based criteria (e.g. visual design) did not transfer over. [AW]

Criteria: Message criteria: accuracy, clarity, completeness, detail, fact, layout, length, logic, novelty, spelling and grammar, tone of writing, topicality. Source criteria: answerer's attitude, honesty, known answerer, perceived expertise based on the answer, perceived expertise based on answerer's profile, reference to external sources, self-claimed expertise or qualification. Other criteria: ratings on the answer, usefulness, verifiability.

Questioning Yahoo! Answers

Type Presentation
Presenter Zoltán Gyöngyi
Presenter Georgia Koutrika
Presenter Jan Pedersen
Presenter Hector Garcia-Molina
Type Paper
Date April 21-25, 2008
Place Beijing, China
Meeting Name first Workshop on Question Answering on the Web, held at WWW '08
URL <http://ilpubs.stanford.edu:8090/819/1/2007-35.pdf>
Date Added Friday January 7, 2011 10:55:21 am
Modified Thursday January 13, 2011 4:03:03 pm

Tags:

activity, behavior, connectedness, reputation, roles, social q&a, users, yahoo! answers

Notes:

Abstract: Presented a study that examined ten months worth of Yahoo! Answers data, focusing on the behavior, activity, roles, interests, connectedness, and reputation of its users. The purpose was to develop a deeper, richer understanding of the interaction model in place in social Q&A services and its implications. The authors described the Yahoo! Answers system and represented its interaction model as graphs, relating users, questions, and/or answers together and distinguishing best answers from other answers. The distribution of askers and answerers was found to follow a power law; askers were more common than answerers, with some overlap. Answerers generally answered questions in more categories than askers asked them in, showing more diverse interests for the former; most users were connected in a single large community. The researchers also measured the reputation of users through hub scores (asked many popular, well-answered questions) and authority scores (best answered many popular questions); quality was seen as more important than quantity and reputation was reinforced by the community. The authors concluded by observing that personalization features and improved reputation mechanisms could increase focused (informational) questions and decrease noise that didn't belong in the system (while leaving alone opinion-seeking questions), thus improving (what they saw as) the quality of questions and answers. [AW]

Questions in, knowledge iN? A study of Naver's question answering community

Type Conference Paper
Author Kevin Kyung Nam
Author Mark S. Ackerman
Author Lada A. Adamic
Date 2009
Proceedings Title Proceedings of the 27th international conference on Human Factors in Computing Systems (CHI '09)
Place New York, NY
Publisher ACM

Pages 779

DOI 10.1145/1518701.1518821

URL <http://portal.acm.org/citation.cfm?id=1518701.1518821>

Accessed Thursday January 13, 2011 2:11:17 pm

Library Catalog CrossRef

Date Added Thursday January 13, 2011 2:11:17 pm

Modified Thursday February 17, 2011 11:08:05 am

Tags:

community, KiN, motivation, naver, participation, social q&a

Notes:

Abstract: The authors examined information and participation behaviors in Naver Knowledge-iN (KiN), a Korean social Q&A service, stating that "rather than trying to identify high quality answers" as others had, they "instead examine[d] how such Q&A systems can sustain a level of participation to guarantee appropriate answers" (p. 779-780). They conducted substantial quantitative analysis of questions and answers and interviews with 26 users. Key motivations for participation by answerers—drawn primarily from the interviews—included altruism (to help others), learning (through looking up or remembering answers), and competency (answering as a hobby); KiN's points (reward) system did motivate some answerers, but only weakly. Higher levels of participation were found to correlate with better performance (as evaluated by question askers). However, "participation [was] often highly intermittent" (p. 779) and askers and answerers were clearly separate populations. The researchers also examined the characteristics of knowledge shared (everyday information, advice, and diverse opinions) and patterns regarding incorrect information (later replies were more often marked best). A distinct lack of a sense of community was reported by interviewees, and implications and potential improvements for KiN and other social systems were discussed based on the results. [AW]

Ranking community answers by modeling question-answer relationships via analogical reasoning

Type Conference Paper

Author Xin-Jing Wang

Author Xudong Tu

Author Dan Feng

Author Lei Zhang

Abstract The method of finding high-quality answers has significant impact on user satisfaction in community question answering systems. However, due to the lexical gap between questions and answers as well as spam typically existing in user-generated content, filtering and ranking answers is very challenging. Previous solutions mainly focus on generating redundant features, or finding textual clues using machine learning techniques; none of them ever consider questions and their answers as relational data but instead model them as independent information. Moreover, they only consider the answers of the current question, and ignore any previous knowledge that would be helpful to bridge the lexical and semantic gap.

We assume that answers are connected to their questions with various types of latent links, i.e. positive indicating high-quality answers, negative links indicating incorrect answers or user-generated spam, and propose an analogical reasoning-based approach which measures the analogy between the new question-answer linkages and those of relevant knowledge which contains only positive links; the candidate answer which has the most analogous link is assumed to be the best answer. We conducted experiments based on 29.8 million Yahoo!Answer question-answer threads and showed the effectiveness of our approach.

Date 2009
Proceedings Title Proceedings of the 32nd international ACM SIGIR conference on research and development in information retrieval (SIGIR '09)
Place New York, NY
Publisher ACM
Pages 179–186
DOI 10.1145/1571941.1571974
ISBN 978-1-60558-483-6
Library Catalog ACM Digital Library
Extra ACM ID: 1571974
Date Added Wednesday January 19, 2011 11:14:27 am
Modified Wednesday January 19, 2011 11:14:57 am

Tags:

algorithm, analogical reasoning, answer retrieval, aw:added, relevance prediction, social answers, yahoo! answers

Notes:

Abstract: The researchers noted that previous efforts to predict and rank high-quality answers had focused on machine learning techniques, generating redundant features from metadata, or on social authority measures. Instead, they argued that questions and answers should be treated as relational data, taking into account links between previously-asked questions and answers when evaluating new answers to new questions. Positive latent relational links were taken to imply answers were of high quality, interpreted in the context of Yahoo! Answers data as those marked as best answers. Negative latent relational links meant answers were incorrect or spam. The authors thus proposed and tested an analogical reasoning approach (the mathematical details explained at some length) that compared new question-answer links against previous relevant Q&A pairs that contained only positive links. A randomly selected corpus of 100,000 Q&A pairs from Yahoo! Answers was used to train the system, based on best answers being high quality. The approach was then tested with a separate group of approximately 200,000 Q&A pairs from Yahoo! Answers and found to significantly improve on baseline methods in retrieving best answers from similar questions. [AW]

Ranking community answers via analogical reasoning

Type Conference Paper
Author X Tu

Author XJ Wang
Author D Feng
Author L Zhang
Date 2009
Publisher ACM New York, NY, USA
Pages 1227-1228
URL internal-pdf://p1227-tu-2739511296/p1227-tu.pdf
Date Added Friday January 7, 2011 10:55:21 am
Modified Friday January 7, 2011 10:55:21 am

Notes:

Proceedings of the 18th international conference on World wide web

Research agenda for social Q&A

Type Journal Article
Author Chirag Shah
Author Sanghee Oh
Author Jung Sun Oh
Abstract As new venues of information and tools for information access are emerging, people's online information seeking behavior is dramatically evolving. While a majority of well-established and classical models of information seeking and behavior are still valid, there is a growing need to study and explain novel information sources and information seeking behaviors that are unique to these sources. One emerging domain is social question and answer (Q&A). This article develops a research agenda for social Q&A, reviewing recent studies and identifying core issues, questions, and challenges.
Publication Library and Information Science Research
Volume 31
Issue 4
Pages 205-209
Date December 2009
Journal Abbr LISR
DOI 10.1016/j.lisr.2009.07.006
ISSN 0740-8188
Date Added Friday January 7, 2011 10:55:00 am
Modified Wednesday January 12, 2011 10:39:13 am

Tags:

answer evaluation, content, motivation, participation, question evaluation, research agenda, review, satisfaction, social answers, social q&a, users

Notes:

Abstract: The authors presented a review of the social Q&A research "situated in the broader context of information seeking research," developing a proposed research agenda based on 'core issues, questions, and challenges' based on the literature. Literature on online Q&A, digital reference services, expert services, and social Q&A were reviewed, focusing on current studies in social Q&A; the latter were separate into content-centered studies (focusing on evaluating the quality of answers) and user-centered studies (focused on the roles of users, their information needs, and the sources they used). The researchers proposed an agenda for studying information seeking behavior in social Q&A services (and social media more broadly) focused on motivations of users, the quality of information (questions and answers) and the satisfaction with it, and technology-related aspects such as user interface concerns; potential research questions were suggested in each of these areas. Challenges for such research included how to collect, analyze, and evaluate data, with multiple approaches possible. [AW]

Rule-based automatic criteria detection for assessing quality of online health information

Type Conference Paper

Author Yunli Wang

Author Rene Richard

Abstract Automatically assessing the quality of health related Web pages is an emerging method for assisting consumers in evaluating online health information. We propose a rule-based method of detecting technical criteria for automatic quality assessment in this paper. Firstly, we defined corresponding measurable indicators for each criterion with the indicator value and expected location. Then candidate lines that may contain indicators are extracted by matching the indicator value with the content of a Web page. The actual location of a candidate line is detected by analyzing the Web page DOM tree. The expression pattern of each candidate line is identified by regular expressions. Each candidate line is classified into a criterion according to rules for matching location and expression patterns. The occurrences of criteria on a Web page are summarized based on the results of line classification. The performance of this rule-based criteria detection method is tested on two data sets. It is also compared with a direct criteria detection method. The results show that the overall accuracy of the rule-based method is higher than that of the direct detection method. Some criteria, such as authors name, authors credential and authors affiliation, which were difficult to detect using the direct detection method, can be effectively detected based on location and expression patterns. The approach of rule-based detecting criteria for assessing the quality of health Web pages is effective. Automatic detection of technical criteria is complementary to the evaluation of content quality, and it can contribute in assessing the comprehensive quality of health related Web sites.

Date 2007

Proceedings Title Proceedings of an international conference addressing Information Technology and Communications in Health (ITCH)

Place Victoria, BC, Canada

Publisher National Resource Council of Canada

URL <http://nparc.cisti-icist.nrc-cnrc.gc.ca/npsi/ctrl?action=shwart&index=an&req=8913818&...>

Date Added Thursday February 3, 2011 10:18:03 am

Modified Thursday February 3, 2011 12:12:12 pm

Tags:

algorithm, automated evaluation, aw:added, criteria, detection, DOM trees, extraction, health resource evaluation

Notes:

Abstract: The authors proposed an automatic, rule-based method for detecting technical criteria to assess the quality of online health information. This method was similar to that of the AIDT tool discussed by Wang and Liu (2007), but made improvements "by using rule-based line classification and analyzing the structure as well as the content of Web pages." The algorithm and its traversal of the Document Object Model (DOM) trees of Web pages is discussed at significant length. Using 20 of the 30 pages retrieved for the "acne" query (only 20 could be parsed into DOM trees), the researchers found recall to be slightly lower, but precision to be perfect (100%). Testing on 29 pages (those parsable into DOM trees) from a new, larger data set of 50 pages on acne with at least one criterion related to author found recall of 94.02% and precision of 99.16%, improvements on the Wang and Liu (2007) method; in addition, author's name, credentials, and affiliation—difficult to accurately detect using the original method—were detected more accurately with the improved algorithm. [AW]

Related

- Automatic detecting indicators for quality of health information on the Web

Selection of the best answer in CQA services

Type Conference Paper

Author Mohan John Blooma

Author Alton Yeow-Kuan Chua

Author Dion Hoe-Lian Goh

Abstract This study examines the factors that affect the selection of the best answer in a Community-driven Question Answering service (Yahoo! Answers). Factors identified were classified into three categories namely, social, textual and content-appraisal features. Social features refer to the community aspects of the users involved and are extracted from the explicit user interaction and feedback. Textual features refer to the surface aspects of the text such as answer length, number of unique words etc. The content-appraisal features emphasis on the quality of the content and the relevance judgment used by the asker to select the best answer. The framework built comprises 12 features from the three categories. Based on a randomly selected dataset of 800 question-answer pairs from Yahoo!Answers, social, textual and content-appraisal features were collected. The results of logistic regression showed the significance of content-appraisal features over social and textual features. The implications of these findings for system development and for future research are discussed.

Date 2010

Proceedings Title 7th IEEE International Conference on Information Technology

Place Los Alamitos, CA

Publisher IEEE Computer Society

Pages 534-539

DOI 10.1109/ITNG.2010.127

ISBN 978-0-7695-3984-3

Library Catalog IEEE Computer Society

Date Added Wednesday January 19, 2011 10:59:38 am

Modified Wednesday January 19, 2011 11:00:55 am

Tags:

answer evaluation, automated evaluation, aw:added, best answers, expert judges, human evaluation, social answers, taxonomy, yahoo! answers

Notes:

Abstract: Examined factors that caused users to select the best answer to questions on Yahoo! Answers. The researchers identified twelve factors or "features": asker authority, answerer authority, users' endorsement, answer length, ratio of question to answer length, number of unique words in answer, non-stop word overlap between question and answer, number of high frequency words, accuracy, completeness, presentation, and reasonableness. These fell within three categories: social features, or community-based metadata; textual features; and content-appraisal features. 1200 (although the abstract claims 800) Q&A pairs—400 questions with their best answer and two other randomly-selected answers—were collected randomly from the Computers and Internet category of Yahoo! Answers and evaluated on the identified features; evaluation combined algorithmic extraction of social and technical features with expert human evaluation of content-appraisal features. (Note that the comments posted on best answers were not utilized.) Logistic regression showed that content-appraisal features were most strongly associated with best answers, with completeness and accuracy the most common features used. The asker's and answerer's authority were found to be non-significant. [AW]

Related

- What makes a high quality user-generated answer?

Social annotations in digital library collections

Type Journal Article

Author Rich Gazan

Publication D-Lib Magazine

Volume 11/12

Issue 14

Date 2008

Date Added Friday January 7, 2011 10:55:14 am

Modified Thursday February 17, 2011 10:25:02 am

Tags:

answerbag, comments, digital libraries, interaction, social annotations, social q&a

Notes:

Abstract: Examined the incorporation of social annotations—"uncontrolled user-generated content"—into digital libraries and similar systems, focusing on Answerbag, a Web 2.0 social Q&A site. Both social Q&A sites and digital libraries can be conceptualized as places and spaces for social interaction, and thus the researcher felt integrating social content features similar to social Q&A sites into digital libraries could help increase participation and engagement. He reported on a long-term participant observation of Answerbag, drawing primarily on qualitative analysis of comments on answers to questions. Social interactions on the site had changed in nature over many years, leading to the introduction and great popularity of the comment feature. The comments provided "an environment where users could see the engagement of others ... and were encouraged to join the conversation" (section 3, para. 4). The author concluded with eight major factors to consider for successful implementation of social annotations: their display, the ease of annotation, the anonymity of users, control over the content, the harvesting of annotations, the ease of retrieval, traffic and network effects, and notification and sharing features. [AW]

Starting a consumer health information service in a public library

Type Journal Article
Author Mary L. Gillaspy
Publication Public Library Quarterly
Volume 18
Issue 3/4
Pages 5-19
Date March 2001
DOI 10.1300/J118v18n03_03
ISSN 0161-6846
Library Catalog Informaworld
Date Added Wednesday March 2, 2011 4:53:05 pm
Modified Wednesday March 2, 2011 4:53:35 pm

Tags:

audience, collection development, consumer health information, evaluation, health information services, health reference services, marketing, physical needs, promotion, public libraries, scope, staffing, technology needs

Notes:

Abstract: "What was an occasional [health information] question thirty years ago," the author noted (p. 6), "has become a torrent of increasingly specific requests." Reasons for this included population mobility (thus frequent changes in physician), managed care (shorter hospitalizations), a more active lifestyle, greater activism amongst patients (especially online), greater coverage of medical topics in the media, and rapid advances in biotechnology and genetics. The author referenced previous projects—including NetWellness in Ohio, NOAH in New York City, and the Planetree Health Resource Center in San

Francisco—as well as helpful information from the Consumer and Patient Health Information Section of the Medical Library Association (now at <http://caphis.mlanet.org/>). She focused her article around a step-by-step guide for how public libraries should implement a consumer health information service. These steps included: identify target audiences; establish philosophy, mission, and vision; determine service and collection scope; plan physical facility and technology needs; determine baseline staffing requirements; hire a consumer health information librarian; determine automation, cataloging, and technical services needs; begin developing policies and procedures; select the collection for opening day (discussed at length); plan for initial and ongoing marketing; prepare forms for gathering patron and transaction statistics; plan for formative and summative evaluations; and celebrate the opening. Additional questions to ask covered the potential inclusion of children's health information, vertical files, brochures, circulation of materials, telephone requests, and mediated search services. [AW]

The community health information network

Type Journal Article
Author Ellen Gartenfeld
Abstract Provides information on the Community Health Information Network (CHIN), a cooperative library network established between the Mount Auburn Hospital in Cambridge, Massachusetts and public library systems of its catchment area. Grants received by CHIN; Creation of an interlibrary loan system to allow public libraries access to existing health sciences library resources; Role of the network coordinator.
Publication Library Journal
Volume 103
Issue 17
Pages 1911-1914
Date 10/1/78
Date Added Wednesday March 2, 2011 1:44:01 pm
Modified Wednesday March 2, 2011 1:45:12 pm

Tags:

collaboration, collection development, education, health reference services, hospital libraries, interlibrary loan, outreach, partnership, public libraries

Notes:

Abstract: The author, noting the rise of a (consumer) health education movement and the growing popularity of health information in the 1970s, argued that both hospitals and libraries should play an important role in this movement. Health science libraries were being forced to provide "materials aimed at the education of lay persons" and public librarians were having to update their expertise and collections with health and medical information and knowledge. She argued hospital libraries had been the first to meet these challenges, and presented the Community Health Information Network (CHIN) as an example of cooperation "between a community hospital [and its library] and the six public library systems of its catchment area" (p. 1912). CHIN's efforts had led to interlibrary loan between the seven libraries; cross-library collection development; an in-service health reference training program; and the offering of health reference, bibliographic, and referral services to patrons. Future efforts were to include the development of a union catalog, guidelines for consumer health collection development, and consumer health education programs; outreach to medical professionals was also planned. The author also argued that

CHIN provided information, not advice; recognized but accepted the potential for patrons to be emotionally harmed by health information; noted there had been no opposition from health service providers; stated standards were in place (or would be) to ensure quality; and felt librarians could not be held legally liable for misuse of information provided. [AW]

The health reference interview: Getting to the heart of the question while assessing your customer's literacy skills

Type Book Section
Editor Marge Kars
Editor Lynda Baker
Editor Feleta L Wilson
Author Karen Pretchel
Book Title The Medical Library Association guide to health literacy
Place New York, NY
Publisher Neal-Schuman Publishers
Date 2008
Pages 181-196
ISBN 1555706258
Library Catalog fs.aleph.fcla.edu Library Catalog
Call Number Z675.M4 M497 2008
Date Added Wednesday March 2, 2011 5:40:22 pm
Modified Wednesday March 2, 2011 5:41:40 pm

Tags:

health reference services, information literacy, language, privacy, public libraries, reference interviews, telephone reference, virtual reference

Notes:

Abstract: The author focused her chapter "on an individual's ability to obtain or access health information" via a health reference interview with a librarian (p. 181). The usual issues in reference interviews are exacerbated in health reference, given the "intimidating" and "scary" nature of some health information, specialized medical terminology and difficult-to-understand language (especially for non-native English speakers), and privacy concerns. The author suggested librarians must be aware of who is asking the question, get as much information as possible from the patron, and ask if there is a deadline involved. If the question was still unclear, privacy might be an issue; walking to the stacks and continuing the interview at a lower volume, or explaining how important privacy is to librarians, might be helpful. Otherwise, paraphrase to assess one's understanding, and check the patron's body language to ensure *they* understand. Following up, when possible, will help to ensure satisfaction; if they are not satisfied, continue to try and help, get their contact information for later follow-up, or refer them to another library or organization that may assist better. Librarians should *not* interpret health information; provide medical advice; answer "what is the best" or "do you think I should"-type questions; make recommendations about treatments, medication, medical professionals, or hospitals; or provide a diagnosis. The author also provided more general suggestions for dealing with literacy issues and with

telephone and e-mail health reference. [AW]

The HON Code of Conduct for medical and health Web sites (HONcode)

Type Web Page
Author Health on the Net Foundation
Date April 1997
URL <http://www.hon.ch/HONcode/Conduct.html>
Accessed Friday January 28, 2011 9:55:23 am
Extra Version 1.6
Date Added Friday January 28, 2011 9:55:23 am
Modified Friday January 28, 2011 9:56:25 am

Tags:

health resource evaluation

Notes:

Criteria:

- **Authoritative** (indicates qualifications of authors)
- **Complementarity** (information supports, not replaced, doctor-patient relationship)
- **Privacy** (respects privacy and confidentiality of personal data submitted)
- **Attribution** (cites sources)
- **Justifiability** (backs up claims re: benefits, performance)
- **Transparency** (accessible presentation, accurate e-mail contact)
- **Financial disclosure** (identifies funding sources)
- **Advertising policy** (clearly distinguishes ads from editorial content)

Understanding and summarizing answers in community-based question answering services

Type Book Section
Author Yuanjie Liu
Author Shasha Li
Author Yunbo Cao
Author Chin-Yew Lin
Author Dingyi Han
Author Yong Yu
Editor Donia Scott
Book Title Proceedings of the 22nd international conference on computational linguistics (Coling 2008)

Volume 1
Place Strousburg, PA
Publisher Association for Computational Linguistics
Date August 2008
Pages 497-504
ISBN 978-1-905593-44-6
URL <http://acl.eldoc.ub.rug.nl/mirror/C/C08/C08-1063.pdf>
Date Added Friday January 7, 2011 10:55:21 am
Modified Monday January 17, 2011 9:24:43 pm

Tags:

answer classification, answer summarization, best answers, quality, question types, social answers, taxonomy, yahoo! answers

Notes:

Abstract: The authors argued that social Q&A services often assume there is one unique "best answer," but this is not always true, especially when the question is subjective or could be answered in multiple, equally "right" ways. They felt this would be especially problematic if reuse of best answers was desired. The researchers thus developed taxonomies, based on 400 randomly selected Yahoo! Answers questions, to determine which questions had reusable best answers and the type of the questions (navigational, transactional, social, or informational, the last subdivided into constant, opinion, context-dependent, and open) and answers (unique factual, direct non-unique factual, indirect non-unique factual, subjective, relevant but not reusable, and irrelevant and not reusable). They found that no more than 48% of answers fell into the unique category. As might be expected, a strong correlation was observed between question and answer types. In addition, the authors were able to improve the quality of answers through automated multi-document summarization of multiple answers, using separate algorithms for open and opinion questions and three human judges to compare multi-answer automatic summaries against individual best answers. Readability of automated summaries, however, was judged to be no better than that of best answers. [AW]

Usability of quality measures for online health information: Can commonly used technical quality criteria be reliably assessed?

Type Journal Article
Author Elmer V Bernstam
Author Smitha Sagaram
Author Muhammad Walji
Author Craig W Johnson
Author Funda Meric-Bernstam
Abstract <AbstractText Label="PURPOSE" NlmCategory="OBJECTIVE">Many criteria have been developed to rate the quality of online health information. To effectively evaluate quality, consumers must use quality criteria that can be reliably assessed. However, few instruments have been validated for inter-rater agreement. Therefore, we assessed the degree to which two raters could reliably assess 22 popularly cited

quality criteria on a sample of 42 complementary and alternative medicine Web sites.

METHODS We determined the degree of inter-rater agreement by calculating the percentage agreement, Cohen's kappa, and prevalence- and bias-adjusted kappa (PABAK).

RESULTS Our un-calibrated analysis showed poor inter-rater agreement on eight of the 22 quality criteria. Therefore, we created operational definitions for each of the criteria, decreased the number of assessment choices and defined where to look for the information. As a result 18 of the 22 quality criteria were reliably assessed (inter-rater agreement \geq or = 0.6).

CONCLUSIONS We conclude that even with precise definitions, some commonly used quality criteria cannot be reliably assessed. However, inter-rater agreement can be improved with precise operational definitions.

Publication International Journal of Medical Informatics
Volume 74
Issue 7-8
Pages 675-683
Date Aug 2005

Journal Abbr Int J Med Inform
DOI 10.1016/j.ijmedinf.2005.02.002
ISSN 1386-5056

Short Title Usability of quality measures for online health information
URL <http://www.ncbi.nlm.nih.gov/pubmed/16043090>
Accessed Thursday February 3, 2011 10:22:07 am

Library Catalog NCBI PubMed
Extra PMID: 16043090
Date Added Thursday February 3, 2011 10:22:07 am
Modified Thursday February 3, 2011 12:01:38 pm

Tags:

aw:added, criteria, health experts, health resource evaluation, human evaluation, reliability, Web resources

Notes:

Abstract: The researchers assessed how reliably 22 popularly cited technical quality criteria—drawn from 26 identified by Eysenbach et al. (2002), removing four that were subjective—for online health information could be assessed, using a sample of 42 complementary and alternative medicine Web sites chosen via queries to search engine Alltheweb. Criteria, listed in Table 1 (p. 677), were assessed independently by the second and third authors by selecting "yes," "no," or "not applicable." The authors found poor inter-rater agreement on eight of the criteria after assessing half the sample, but were able to more reliably assess 18 of the 22 criteria for the second half of the sample after creating operational definitions (see Table 2, pp. 679-680), removing the "not applicable" choice for all but three criteria, and defining whether assessment of criteria should look at one page or the site as a whole. Disclosure of sponsorship, links provided, e-mail address provided, and general disclaimers provided could not be assessed reliably. The authors concluded that "precise, unambiguous" criteria that "tested [well] for inter-rater agreement" and are operationally defined should be used and tested further in future. [AW]

Related

- Empirical studies assessing the quality of health information for consumers on the World Wide Web: A systematic review

Users' relevance criteria for evaluating answers in a social Q&A site

Type Journal Article
Author Soojung Kim
Author Sanghee Oh
Publication Journal of the American Society for Information Science and Technology
Volume 60
Issue 4
Pages 716-727
Date 2009
DOI 10.1002/asi.21026
Date Added Friday January 7, 2011 10:55:21 am
Modified Wednesday January 12, 2011 10:32:58 am

Tags:

answer evaluation, best answers, comments, human evaluation, question askers, social answers, social q&a, yahoo! answers

Notes:

Abstract: The authors focused on identifying the criteria users asking questions using Yahoo! Answers employed to select those answers that were best, through an analysis of the comments they left when doing so. 2,140 comments were collected and analyzed using inductive, qualitative content analysis. Six categories of criteria were identified: socio-emotional (29.8%), content (26.1%), utility (23.3%), information sources (9.0%), cognitive (7.4%), and extrinsic (4.4%). Within these categories, 23 individual relevance criteria were placed, many overlapping with criteria from the broader literature on relevance (as seen in Saracevic's 2007 review in JASIST); the most common were solution feasibility (14.8%), agreement/confirmation (12.1%), completeness (9.9%), and effectiveness (8.6%). However, the

researchers found that socio-emotional criteria were particularly prominent and had a larger scope than in previous relevance research; the social contexts of the Yahoo! Answers environment—as much a social network as a reference service—played a large role in that prominence. In addition, the relative importance of criteria differed between topic categories; socio-emotional criteria were more popular in discussion-oriented categories, content criteria in topic-oriented categories, and utility criteria in self-help categories. [AW]

Related

- Best-answer selection criteria in a social Q&A site from the user oriented relevance perspective

Website quality indicators for consumers

Type Journal Article
Author Kathleen M Griffiths
Author Helen Christensen
Publication Journal of Medical Internet Research
Volume 7
Issue 5
Date Nov 15 2005
DOI 10.2196/jmir.7.5.e55
Library Catalog PubMed Central
Date Added Friday January 28, 2011 11:20:40 am
Modified Friday January 28, 2011 11:21:15 am

Tags:

aw:added, criteria, DISCERN, Google PageRank, health consumers, health experts, health resource evaluation, human evaluation, instruments, quality, validity

Notes:

Abstract: The authors examined the use of DISCERN, "an instrument ... 'to judge the quality of written information about treatment choices'" (p. 1), as applied to consumers' evaluation of online health resources. DISCERN is a 16-item instrument that evaluates the usefulness, relevancy, trustworthiness, knowledge level, understandability, navigability, and attractiveness of health Web sites. The authors randomly sampled 24 Web sites on depression from the Open Directory Project's Depression category, stratifying by Google PageRank score (three sites each for scores 0-7). Evaluation criteria included site characteristics (rated by two health professionals and listed in Table 1, p. 4), "an evidence-based gold standard" (employed by the same two health professionals, p. 2), DISCERN itself (employed by two other health professionals and three consumers), Google's PageRank, and user satisfaction (a 9-item instrument, used by all). Evidence-based quality measures highly correlated with DISCERN ratings, and the DISCERN ratings of both consumers and experts were also highly correlated. Google PageRank did correlate with evidence-based scores, but not quite as highly. The authors concluded DISCERN showed validity as an indicator of the quality of online health information, and that Google PageRank could be an acceptable automatic measure and "screening device" (p. 7). [AW]

What makes a high quality user-generated answer?

- Type** Journal Article
- Author** Mohan John Blooma
- Author** Alton Yeow-Kuan Chua
- Author** Dion Hoe-Lian Goh
- Abstract** Community-driven Question Answering (CQA) services on the Internet enable users to share content in the form of questions and answers. Nonetheless, questions usually attract multiple answers of varying quality from the user community. For this reason, the purpose of this paper is to identify high quality answers from a group of candidate answers obtained from semantically similar questions that match with the new question. To do so, a three-component quality framework comprising social, textual and content-appraisal features of user-generated answers in CQA services was developed and tested on Yahoo! Answers. The results of our logistic regression analysis revealed content-appraisal features to be the strongest predictor of quality in user-generated answers. Specifically, these features include dimensions such as comprehensiveness, truthfulness and practicality. Going forward, the quality framework developed in this paper may be used to pave the way for more robust CQA services.
- Publication** IEEE Internet Computing
- Volume** 15
- Issue** 1
- Pages** 66-71
- Date** Jan-Feb 2011
- Journal Abbr** IEEE Internet Computing
- DOI** 10.1109/MIC.2011.23
- ISSN** 1089-7801
- Library Catalog** IEEE Xplore
- Date Added** Wednesday January 19, 2011 10:52:46 am
- Modified** Tuesday January 25, 2011 9:53:31 am

Tags:

answer evaluation, automated evaluation, aw:added, best answers, expert judges, human evaluation, social answers, taxonomy, yahoo! answers

Notes:

Abstract: Reports on the same study as Blooma, Chua, & Goh (2010). The researchers developed and tested a framework of 12 "features" (factors) that contribute to the quality of user-generated answers in social Q&A services, specifically Yahoo! Answers. The framework consisted of social, textual, and content-appraisal features, with the 12 features falling under these (see the earlier paper and abstract for details). Logistic regression was used to test the framework, as applied to 400 questions with three answers each (the best answer and two others); content-appraisal features were found to be the strongest predictor of overall quality. The framework also correctly predicted whether an answer was chosen as "best" 89.3% of the time. Ten factors were significant; asker's authority and answerer's authority fell out, while completeness, accuracy, and users' endorsement were most strongly associated with high-quality answers. Finally, the authors briefly discussed applying the framework to automate the selection of best

answers from previous, similar questions; this system was under development and no experimental results were included in the article. [AW]

Related

- Selection of the best answer in CQA services

Yahoo! Answers dominates Q&A: No wonder Google gave up

Type Magazine Article
Author Pete Cashmore
Publication Mashable
Date 2006-12-28
URL <http://mashable.com/2006/12/28/yahoo-answersdominates-q-a-no-wonder-google-gave-up/>
Date Added Friday January 7, 2011 10:55:33 am
Modified Wednesday January 12, 2011 10:09:21 am

Tags:

answers, social q&a, yahoo! answers

Notes:

Abstract: Statistics from late 2006 on market share of Yahoo! Answers and other online / social Q&A services. Cited Yahoo! Answers' rapid growth to 96% of market as "no doubt one of the reasons for Google Answers shutting its doors." [AW]