

TERM PROJECT PHASE 2

CAN I ASK YOU SOMETHING: TASK ANALYSIS

Introduction

This system is intended to provide an alternative source of the kinds of information a higher-education faculty member might get from a mentor. It is modeled on what the coding site www.stackoverflow.com offers to programmers, but there are many other examples of discussion forums out there. The idea is that faculty members may be more comfortable explaining some questions and problems to a stranger than to their regular mentor. Similarly, it is possible that the people answering the posted questions may take more care in explaining than they might if they were sitting across a desk from the questioner.

Users of the system may create an online profile for themselves, as well as a login ID. Users can only rate responses of other users if logged in, but anyone can post a question, and anyone can post an answer. Through the rating system, users who provide an answer will develop social capital on the site. Newer users can use the ratings to help decide whose answers they can trust. Part of the process of posting the question includes adding tags to it, which will then place the question in lists of items that have the same tag. Questions may have comments, separate from their answers. Comments can point out a need for clarification or add other information. Answers may be posted to questions whether or not there are other answers already posted. Answers may have comments as well, and tags may be added to them as needed. Any user who posts content to the site may edit that content, but only the system administrator can modify content posted by another user.

Task Development Methodology

I developed the task list myself, because faculty members were not available to interview, due to the campus closing. Based on my familiarity with this kind of discussion forum and later review by individuals with faculty experience, I'm fairly comfortable with the list I've devised.

Expected Users and Tasks

The expected users of this system are faculty members at any post-secondary institution. Since the system is intended to provide a context for asking and answering questions about being a faculty member, it is anticipated that any faculty member might be interested in using the system. Users of the system are expected to fall into three categories: seekers of information, providers of information, and system administrators. Any single individual might inhabit all of these roles.

The tasks that users might need to accomplish, as well as the related tasks and variations, are listed below:

Create online profile	Edit your own question	Comment on an answer
Edit online profile	Delete your own question	Edit your own comments
Upload profile picture	Add a tag to a question	Rate an answer
Change profile picture	Edit the tags you've added	Edit the ratings you've made
Create a user ID	Comment on a question	Add a tag to an answer
Create a password	Edit the comments you made	Edit the tags you've added
Change password	Post an answer on a forum	Monitor discussion threads
Delete online profile	Edit your own answers	Delete inappropriate posts
Post a question to a forum	Delete your own answers	Consolidate tags as needed

Validate the Tasks

The task list was reviewed by two individuals with faculty experience.

Tentative List of Requirements

Must have:

-
1. Display a list of questions and answers
 - a. Vary the list by search term / tag choice
 - b. Display ratings with questions (ex: was this answer useful to you?)
 2. Permit user input for new questions / tags / answers
 3. Permit user to create user profile
 4. Permit user to log in to system
 5. Store user information
 6. Store questions
 7. Store tags on questions
 8. Store answers
 9. Store all the ratings associated with an answer
 10. Store tags on answers
 11. Should not be audible, given quantity of text, and nature of text

Might have:

-
12. Display more information about a user from the question list
 13. Permit one user to "follow" another user; to be notified when the user posts anything new
 14. Display the total number of times an answer has been viewed
 15. More likely to be used in office / home – quiet place
 16. Should be mobile enabled, though, to improve accessibility

References

It doesn't appear that anyone has ever made a discussion forum for mentoring. Happily, there are discussion forums for many other purposes, and mine can be modeled on those. Based on my brief review of the literature, I can immediately see that there are a few main areas where I must take care:

1. Working to facilitate trust building among the members of the community
2. Acknowledging that not everyone will have the same commitment to the site; some will visit the site only to read what others have posted
3. Recognizing that it is important to actually manage the forum; one can't just start it running and walk away

Adali, S., Escriva, R., Goldberg, M. K., Hayvanovych, M., Magdon-Ismael, M., Szymanski, B. K., Wallace, W. A., et al. (2010). Measuring behavioral trust in social networks. *2010 IEEE International Conference on Intelligence and Security Informatics (ISI)* (pp. 150–152). Presented at the 2010 IEEE International Conference on Intelligence and Security Informatics (ISI), IEEE.

doi:10.1109/ISI.2010.5484757. In this article, Adali et al define trust and explain its importance to social networks. Since my system will comprise a social network, I need to understand how to build trust among the participants.

Chen, F. (2004). Passive forum behaviors (lurking): a community perspective. *Proceedings of the 6th international conference on Learning sciences, ICLS '04* (pp. 128–135). International Society of the Learning Sciences. Retrieved from <http://dl.acm.org/citation.cfm?id=1149126.1149140>. Chen provides a good definition of lurking in the discussion forum setting, and offers some explanation of what inspires people to lurk. Chen also lists some positive impacts from the behavior.

Farzan, R., Kraut, R., Pal, A., & Konstan, J. (2012). Socializing volunteers in an online community: a field experiment. *Proceedings of the ACM 2012 conference on Computer Supported Cooperative Work, CSCW '12* (pp. 325–334). New York, NY, USA: ACM. doi:10.1145/2145204.2145256. This article describes initial research in socialization of volunteers to take on core positions in a newly-forming online community. Socialization experiences are the norm for traditional communities, but not for online communities. The authors created socialization experiences for a discussion forum community where volunteers answer tax questions.

Golbeck, J. (2008). Weaving a Web of Trust. *Science*, 321(5896), 1640–1641. doi:10.1126/science.1163357. Author comments on how we need social trust mechanisms to keep moving forward as the web evolves.

Lee, Y.-W., Chen, F.-C., & Jiang, H.-M. (2006). Lurking as participation: a community perspective on lurkers' identity and negotiability. *Proceedings of the 7th international conference on Learning sciences, ICLS '06* (pp. 404–410). International Society of the Learning Sciences. Retrieved from <http://dl.acm.org/citation.cfm?id=1150034.1150093>. We must know more about lurkers because they make up such a large proportion of any online community. Though many definitions and attitudes are negative, there is such a thing as Legitimate Peripheral Participation.

Pieterse, V., & van Rooyen, I. J. (2011). Student discussion forums: what is in it for them? *Computer Science Education Research Conference, CSERC '11* (pp. 59–70). Open Univ., Heerlen, The Netherlands, The Netherlands: Open Universiteit, Heerlen. Retrieved from <http://dl.acm.org/citation.cfm?id=2043594.2043599>. This article gives analysis of student participation in a formal discussion forum, organized through the department website, and an informal discussion forum, hosted on Facebook. The authors emphasize what is borne out by

their research: a discussion forum must be *managed* to be useful – one can't just set it up and then leave it.

- Pollini, A., Giusti, L., & Napoletano, L. (2011). Emerging informal learning 2.0 practices: a preliminary exploration. *Proceedings of the 9th ACM SIGCHI Italian Chapter International Conference on Computer-Human Interaction: Facing Complexity, CHIItaly* (pp. 71–75). New York, NY, USA: ACM. doi:10.1145/2037296.2037316. People are using web 2.0 tools to create learning communities. There is considerable material to be studied.
- Rosson, M. B., Carroll, J. M., Zhao, D., & Paone, T. (2009). wConnect: a facebook-based developmental learning community to support women in information technology. *Proceedings of the fourth international conference on Communities and technologies, '09* (pp. 125–134). New York, NY, USA: ACM. doi:10.1145/1556460.1556480. This interesting article focuses primarily on the challenges of creating an online community – challenges in coding, and challenges in content, or community development.
- Underwood, J. S., & Bowers, J. S. (2004). Diverse settings for learning and teaching: preservice teachers learning pedagogy online and on-the-fly. *Proceedings of the 6th international conference on Learning sciences, ICLS '04* (pp. 545–552). International Society of the Learning Sciences. Retrieved from <http://dl.acm.org/citation.cfm?id=1149126.1149193>. This article describes pre-service teachers using an online tool to practice mentoring math students. The new teachers found the tool helpful; they felt like they were working with 'real' students.