

# Communities of Practice: Dare to Share the Knowledge

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## ABSTRACT

Communities of practice are not a new idea, but they are being looked at more closely as an important tool for learning and mastering knowledge challenges. Communities of practice often lend themselves to a particular strategic intent for their existence.[6] The Help Desk with all of its ongoing training and sharing naturally lends itself to the purpose of a helping community.

An inherent quality of communities of practice is that they connect people across organizational boundaries. By nurturing a community of practice that brings together student help desk staff, user services staff, and system support staff, the Help Desk is able to nurture a knowledge sharing culture that makes the student consultants feel more valued in their work, and willing to seek solutions from their peers as well as across traditional organizational boundaries.[3] The student consultants also contribute knowledge from their unique perspectives.

This paper will review the history of our first attempts at developing a community of practice at the Help Desk and the ongoing cultivation process.[5]

## Categories and Subject Descriptors

K.6.1 [Management of Computing and Information Systems]: Project and People Management – Management Techniques, Staffing, Training.

**General Terms:** Management, Performance, Human Factors

**Keywords:** Communities of practice, help desk, knowledge management, learning, management, organizational learning, student staff, training.

## 1. INTRODUCTION

Rutgers, The State University of New Jersey, on the Camden campus is the smallest of the three regional Rutgers' campuses, with a student population of approximately 6,000 and 300 faculty and staff. Although the campus covers only forty acres, we provide Help Desk services in several public computing labs across the campus. As our student consultants are often the first

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SIGUCCS'04, October 10–13, 2004, Baltimore, Maryland, USA.  
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to hear and recognize a problem, it became apparent to us that we needed to nurture a knowledge sharing culture that cut across organizational as well as geographical boundaries.

## 2. BACKGROUND

As the public labs which we supported expanded across the campus, we had a couple different models of support in the labs. One lab which was set up for extended and quick consultations, had a full time Help Desk supervisor working along side a student consultant. Other larger labs were initially only staffed by student consultants. All the consultants needed to learn many of the same procedures and attended the same pre-employment training, but once the semester started, there was a lack of communication between consultants in the scattered labs, full time Help Desk staff, and systems staff.

User surveys and focus groups with faculty and staff revealed our user community did not like using the Help Desk because problems were dropped or not passed onto other support staff. A focus group with our student consultants revealed that some were unsure of who to call when a problem arose that they could not handle, and they were afraid that they might approach the wrong staff member due to the confusing nature of some problems. At the same time, it was becoming apparent that some of our student consultants also had skills that would greatly benefit the Help Desk's repertoire of areas of assistance.

The catalyst for change came when our director asked for a new model of training for our student consultants.

## 3. COMMUNITIES OF PRACTICE

Long gone are the days when the computer center supported a handful of researchers using the single mainframe system, and there was no need for a Help Desk. University technology departments support a variety of operating systems from OSX to LINUX with a myriad of Windows versions in between. Networking has moved access to computing resources that span the world, and all the attendant debugging problems that arise when the resolution to an error message is not confined to the room housing the mainframe. Systems staff manage a multitude of servers that provide the University community with access to e-mail, software packages for research, administrative functions of the university as well as systems providing networking services like DHCP. As the complexity of the systems behind the services grows, there is a need for greater collaboration between all the staff when a complex problem arises.

The social systems behind all the technology are very important[1], and that's where communities of practice come into play. Communities of practice provide a mechanism for sharing knowledge because they are groups of people who share a concern

about a topic and interact on a regular basis in order to deepen that knowledge. [7] The student consultants gain because they are included in a practice that many of them hope to enter after graduation, and the full-time staff gain because they learn new perspectives of their student constituency, and have access to student staff who may be more familiar with the intricacies of special course-related software and are willing testers.

#### **4. FACE TO FACE COMMUNICATIONS**

Fostering face to face relationships have been important in nurturing our community of practice. Trust has been developed between the full time staff and the student consultants when they meet throughout the semester, and share insights and knowledge on particular areas of expertise.

Monthly meetings feature a guest full-time staff member who speaks about topics of interest to the student consultants that they may not get much exposure to working in the help desk. Full time staff have spoken about networking – LANs, WANS, and wireless to name a few, as well as the administration of servers. This contact also lets the student consultant know who to contact and what kind of background information is needed should a problem arise in one of those areas.

Several mentoring programs have also been instituted. One mentoring program within the help desk environment has a newly trained and hired student consultant work one-on-one with a full time help desk staff member while learning the ropes of assisting customers at the help desk. Another mentoring program that has proved especially popular with our student help desk consultants is one that gives them an opportunity to apply for a mentorship with one of the full time staff who specialize in networking or systems administration. The latter mentorship gives them exposure to areas in the information technology field they often don't get exposure to at the help desk. A student who is mentored by one of the telecommunications/networking staff has the opportunity to tour the equipment rooms that house the networking switches and routers across the campus, and learn more about network protocols.

Peers are also an important learning/knowledge resource. The student consultants work through case studies in training, or talk with each other regarding a problem, and they construct shared meaning, and bring each other along collectively.[2]

#### **5. CONNECTING THROUGH TECHNOLOGY**

Studies have shown that information technology usually reinforces the norms of an organization with the sharing of information and ideas with others in the organization.[4] We don't want to underestimate the importance of face-to-face training, meetings, and orientations in which our student consultants have the opportunity to interact with peers, full time Help Desk staff, and systems staff, however we do want to take advantage of the many great tools for collaborating such as email, listservs, knowledge bases, and web based course tools to augment the face to face contact.

The Help Desk uses a variety of mailing lists in order to communicate about and resolve our customers' problems. By including student consultants in these listservs, we are able to model the proper way to answer a customer's query, plus the student consultants are free to lurk and learn as full time staff

from a variety of teams within the information technology department discuss and debug the thornier issues.

Webct has also been an invaluable tool for fostering collaboration and communication among the full time help desk staff and the student consultants. The bulletin board feature was used when we initiated a Help Desk FAQ development project. Student consultants and full time staff contributed three frequently asked questions per week to seed our FAQ website. Duplicate frequently asked questions were not allowed, so everyone needed to read other contributions in order submit his/her own unique contributions. The FAQ website was an important resource for the help desk. The consultants and staff who contributed the FAQs consulted the website during the course of their shifts. Research has shown that when communities members determine what materials are valuable to them, they are more likely to use and produce valuable documentation.[8]

A help desk tracking system developed by our main campus, has also been instrumental in facilitating communications not only within our own campus, but across the campuses located in three different geographical areas in the state. Through this tracking system, student consultants who work at our help desk, and assist the student population who reside in on campus housing, are able to look up, track information, and communicate with networking staff, staff on our main campus who have developed the Resnet system, which is what the processes behind registering a dormitory resident's computer is called, and their peers, who often work different hours, but need to follow up for a fellow co-worker.

Although the Camden campus covers a small area, colleagues on our larger campuses have found that AIM (AOL Instant Messenger) and other similar clients are useful for connecting student consultants and full-time staff and conveying time critical information needed to resolve a customer's inquiry.

A website devoted to information needed by student consultants, and full time IT staff has been helpful in documenting steps, and procedures which the student consultants, and full time staff can follow in resolving customers' issues. One particularly useful page was developed jointly by student consultants who work in our dormitories, full time help desk staff, and our networking staff, in order to debug connectivity issues with a dormitory resident's computer.

#### **6. CHALLENGES**

There are quite a few challenges when including students in a community of practice however. The regular turnover of students as they graduate and are replaced by new student consultants causes breaks in the community. Good communities of practice offer different levels of membership, but a community of practice is driven by the values and benefits that its members derive from belonging.[9] Incoming student consultants may not find value in a project that had value to the previous members. In fact this problem occurred after our FAQ website was deployed. The student consultants who were involved in populating the database used and found it more valuable than the next generation who were primarily involved in updating it.

Communities of practice need familiarity and trust in order for participation and growth to happen. When students are graduating and new members are coming in, the new members are

often reticent to jump in where a recent graduate has left off, and need time to acclimate themselves to the community before participating.

## 7. CONCLUSION

Overall, the community of practice model for learning within our department has proved valuable to our organization. Results from annual surveys conducted by our department have shown an increase in satisfaction with the help desk within our user community. Problems are no longer falling between the cracks due to a lack of communication between the student consultants and full time staff. Student consultants feel more valued as their voice is heard within the department, and they contribute to the efficient running of the department, but taking responsibility and answering more involved questions or participating in testing of programs that they may have previously left to a full time staff member.

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**This work is based on an earlier work: Building a community of practice at the help desk, in Proceedings of the 30th annual ACM SIGUCCS conference on User services (2002) ACM, 2002.**

<http://doi.acm.org/10.1145/588646.588694>