Conditions Synthesis Report

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Introduction

The study of the five standards was conducted in the computing sciences (CS) department at Coastal Carolina University. The CS department offers degree programs in the area of computer science (CSCI), information systems (IS), and information technology (IT). The department consists of approximately seven tenured/tenure-track faculty, five lecturers, greater than fifteen adjunct instructors, and one executive assistant. The administrators in the department include a chair, coordinators for courses, and committee groups (one for IS/IT and one for CSCI). The department chair must be a tenured faculty member, but any of the full-time faculty can be coordinators and sit on a committee.

Technology is important to the CS department since computer programming, networking systems, and software engineering, all rely on the use of technology in the classroom and at home for the students to learn and practice. Given this heavy reliance on technology, it is important that the educational administrators for the department develop appropriate plans for the proper use of technology and a clear pedagogy for how content should be presented to the students who must use the technology. The five standards: 1) visionary leadership, 2) digital-age learning culture, 3) excellence in professional practice, 4) systemic improvement, and 5) digital citizenship, dictate important strategies for leading and modeling effect technology use in educational organizations.

The five standards each have a set of indicators for which educational leaders can use to drive the development and implementation of technology in their organizations. Using the suggestions provided in the indicators and the description of the standards as a guide, I used interviews with the department chair, committee meeting notes, department meeting notes, and accreditation documentation, to gather data on how successful the CS department's leaders

followed these standards when developing and modeling technology use throughout their organization. During this data collection, I discovered the following set of issues:

1. Lack of formal process to develop and implement technology across courses in the department

2. Lack of reporting from individuals and committees to the entire department

3. Lack of review process for technology use and implementation

4. Lack of data collection to improve department technology use and strategic global endeavors

5. Lack of collaborative support from the community, such as parents and students

6. Lack of strategic partnerships

The list of issues follows a common theme throughout each standard, no formal process or procedure is written for the department to consistently follow and there is no collection of data for the department to review. This lack of collection and reporting extends through all stakeholders for the department, to include parents, students, community, and industry. There was no reply from the department when asked why the department website was not used to provide information for those seeking to learn more about the department and department programs. The website is the initial insight to the department and is important to be able to relay the mission of the department to external stakeholders.

Reasons for concern

The first issue surrounds leadership in the department and the need to formally write and post policy and procedure. This display of procedural information is important to those who want

to maintain consistency in the department, especially related to technology use, as well as to those who are new to the department and do not yet know the policy and procedures. In standard one, maintaining a cohesive process to develop and implement a technology plan is one indicator of success. Others indicators suggest shared development by all stakeholders and the collection of data to make leadership decisions. I submit that if policy nor procedure are written, then leading becomes more difficult since members of the department will tend to follow their own desires rather than seek out the information needed. Change needs to be fairly immediate in a technology world and faculty especially, will not spend a lot of time trying to discover how to do something when they feel their method will do.

The CS department leaders need to formally write policy and procedure to state specifically how technology will be implemented and used in the classroom. This does not mean they will tell the instructors how to teach the content of their classes, but how to maintain a safe environment relating to technology use that is also ethical and does not infringe upon the rights of others, per standard 5 (digital citizenship). A secondary compliance of formal procedures includes making sure instructors also include how to use technology in their syllabi. Many students will use the excuse of not knowing about policy when accused of breaking informal procedures, such as those that apply to cheating. For example, not using the chat feature to talk to others during an electronic exam.

One way to help with understanding what to write in policy is connected to issue two, a lack of reporting from the members of the department. When committees meet to make changes to courses, whether it is adding new technology or the removal of technology, it is not required that they report back to the entire department those changes. This can affect all individuals in the department, not just those who are new, since it is possible that any member of the faculty can

teach any course at any time. There is a need to require committees to report changes in

technology and technology use, not just content changes, during department meetings or through

general email correspondence. Good communication, per standard 3 (excellence in professional

practice). Doing so will prevent many of the hiccups that occur at the beginning of the semester

as well as prevent students from being disgruntled when technology does not work or the

instructor does not know how to use the technology that is required for students to use when

completing assignments.

  Issue three is an issue of reviewing technology change and use. The change can easily

relate to the issues previously mentioned with teachers not knowing the technology and therefore

not being able to help students. The latter has more to do with the use of technology in the

classroom. There are cases where the required technology is dated and not useful for the current

class requirements. This is sometimes the case for equipment as well as software. There is no

process in place that covers version changes in either software application or operating systems

as it relates to course content. Individuals in the department do willingly inform the department

when there is a change, but it is not required. Once again, this can affect any member of the

department, old or new. Including this type of review process, per standard 4 (systemic

improvement), can ensure the department is up-to-date with trending technology that is more

effective in the classroom and is therefore a benefit to students and the department.

  Aside from the needed policy, procedures, and simple processes, a lack of data collection

(collectively) on what is used in the classroom does not allow leaders to plan for future changes

or sometimes meet the fast pace changes that are happening in industry and in the world. Again,

aiding in systemic improvement for the department. Students will most often come into the

classroom with knowledge of new technology and its use that is more advanced that what is

used. In these cases, there should be a concerted effort to report this back to committees and the

department to see if there are possible, worthwhile changes that can be made to the course and/or

curriculum. One of the larger areas of change that I've seen surrounds dynamic textbooks. These

are not eBooks, per se, but textbooks for which students can read content, complete assignments,

and upload external material. These are actual textbooks, not content management systems,

which is what makes them unique. The need for technology to functional correctly is imperative

for this platform as it is, of course, primarily online.

Collaboration is key for any educational entity. Sharing information with all stakeholders

will keep the department current and improve benefit for students, who are key stakeholders. The

CS department has smaller forms of group collaboration, but a broader stroke is needed to reach

out to the community, both local and global. The department's partnership with China is a great

step toward the type of global collaboration that is needed. Students from China are allowed to

attend CCU and complete their degree as well as students currently enrolled at CCU can go to

China.

More collaboration is needed in the area of research and community outreach. Faculty

and staff need to work with CS student organizations to reach out to the community and expose

those who would not normally have access to technology. Doing so will also open the door for

more student to choose the technology area as their degree program and career. Committing to

the above changes would improve success for standard 2 (digital-age learning culture), standard

3 (excellence in professional practice), and standard 5 (digital citizenship).

Lastly, strategic partnership is very important to the success of any organization. Except

for China, I do not know of any other strategic partnerships within the department. Local and

global partnerships can strengthen the department's foundation in the technology area and help it

reach its goals. Students will be more exposed to the types of opportunities available for them in their career choice and even provide them with experience before graduating and entering their career. Leveraging new partnerships will expose the department to a larger audience, possibly provide additional funding, and aid in systemic improvement (standard 4).

Conclusion

In conclusion, with growth in the areas for which the CS department is not currently tasked and with the success it currently has with digital citizenship and digital-age culture, the department has the potential to be a cohesive unit that is a leader in modeling cutting-edge technology and its use in the classroom. If the department does not address the issues, it could become stagnate, morale could decrease, and it could lose good personnel. For instance, continuing to not formalize policy and procedure allows individual to continue to make ad-hoc changes. In do that, the cohesiveness of the curriculum is affected and students will start to doubt the need for certain classes, since they do not relate to others (or classes more closely directed to their career). I've personally experienced this when IT students have asked why they need a Java programming course. Students need to understand the connection.

If the department does not review its technology use, it is very easy for things to stay the same and again for the program to become stagnate. In this situation, the loss of students is possible and this will quickly be notice by upper management (the higher administrators). Universities, as we all know, do not like to see students leave without graduating. Retention to graduation is critical. Review goes hand-in-hand with reporting. It is important for individuals to report to the department areas with 'lack' and in need of improvement. Likewise, it is important to report changes to the department and not work in a silo. Doing this can cause others in the department to feel ostracized which can lead to a lack of participation. Without the full

commitment of faculty and staff in the department, many tasks can go undone or fall of the shoulders of just the few, causing animosity and ill will.

Not having some sort of collaborative effort with the community will lead to students going elsewhere for their education. Successful universities and colleges, who are not ivy league, reach out continually to the community to inform the masses that they exist and what they do. This gives more people a chance to explore and compare. Although we are held back by FERPA, including parents and other guardians in what is happening with their children can create a positive experience and create a working relationship that could benefit the department by word of mouth retelling and support. I experienced this when my daughter attended Agnes Scott College (ASC) in Decatur, Georgia. I was worried because she was moving so far from home, not just because of mother worry, but because I did not know if she would garner the necessary relationships to be successful. My fears were quickly put to rest as ASC continually included me in communication of a variety of activities occurring on and off campus (essentially letting me know how my daughter could participate). I just read an email today from the now former president of the college when my daughter attended. She just retired and was saying her final goodbyes and it included parents, current and former. It is because of the relationship formed, due to their including me, that I donate to their annual fund.

This type of relationship does not end with the community; strategic partnerships can also increase exposure for the department. Again, it is possible to lose students simply because they do not feel the school helps them enough in finding a job after graduation. Forming a partnership with industry can help garner internships and cooperative education experiences for students that can lead to permanent employment after graduation. It is also possible that industry partners will donate technology and other resources to the department. As stated in McGrath, Van Buskirk,

and National Center for Urban Partnerships (1997), partners give long-term funding when they

are attracted by long-term collaboration and development of a learning community.

   Overall, I think the computing sciences department does a great job of supporting faculty

with their career endeavors and other professional development (training and higher degrees). I

also think it does well with general communication and announcement requests. Technology use

in the department is prevalent and there is funding for new technology each year. I believe the

department should continue to be strong in its digital citizenship and cultivate it into a formal set

of processes that govern how technology change occurs and build a community around that to

include external stakeholders like parents, local high schools, and industry. There are far too

many lecturers leading the charge to develop more community and research activities

surrounding technology, but what is needed is for tenure-track and tenured faculty to join in so

that it can be more widely embraced. Systemic improvement and great leadership rests solely on

gathering data on technology use, affecting change based on review of the data, and developing

formal plans and procedures for technology and technology use in the department.

References

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