THE QUESTION OF PROFESSIONAL CERTIFICATION

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INTRODUCTION

In the past few years there has been a growth in the area of computer professional certification. Most computer vendors now have some type of certification program. Upon passing an examination, or a set of examinations, a computer professional is certified to have a specific level of expertise with a specific hardware or software product. In addition to these vendor specific certification programs, there are computer certification programs that are administered by independent organizations and designed to demonstrate a mastery of a specific set of computer related skills.

Along with the increased availability of these certification programs there seems to be an increased interest from students who want to become certified. As a faculty advisor and teacher of computer networking courses, I have seen this interest increase over the past few years. I am frequently asked to give advice as to which college-level course should be taken in order to pass the Microsoft or Novell professional certification exams.

As colleges are asked to be more responsive to the workforce needs of their community, I feel that academically based computer science departments may be pressured to offer more and more specific computer skills training. Specifically, computer science departments may be asked to provide training that will lead to professional certification. I feel that it is important that computer educators begin to discuss this issue and try to determine how we will respond to this request.

The purpose of this paper is to briefly present some of the advantages and disadvantages of being involved in computer professional certification training. This paper is not intended to be an extensive study of the problem. This paper is intended to provide a framework for discussion as we begin to grapple with this issue. Additionally, I have included a list of professional certification sites at the end of this paper so that you may have the opportunity to examine the types of certification programs that are currently available.
ADVANTAGES

Career Enhancement

Many students want to be certified so that they may be able to add titles to their resume. The perception is that being certified gives them an advantage over other similarly qualified candidates. Some students may be currently employed and will receive an increase in salary after obtaining professional certification. In the minds of many students, being certified has a direct impact on their earnings potential.

"Real World" Technology

There is a perception that much of the material learned in college does not relate to what a person will do after they graduate. With professional certification training students are exposed to products and skills that are being used in today's work environment. Students are given "hands on" experience in the newest computer technologies.

Independent Validation of Learning

As part of an accreditation process, colleges are often asked to assess learning outcomes. This assessment usually requires using tools other than traditional grades. After students complete professional certification training they would then presumably take the professional certification exam. A school could track the percentage of students that pass the exam after successful completion of training. This type of tracking is already done in many fields. For example, law schools track the percentage of graduates that pass the bar exam.

DISADVANTAGES

Expense

In order to be allowed to offer professional certification training there are often many requirements that a site must meet. These requirements will vary from vendor to vendor but usually include specific hardware and software requirements. These requirements change on a frequent basis and in order to remain a certified training site, labs must be constantly updated. This strain on resources is problematic in most academic settings.

Certification of Instructors

Often, instructors that will provide specific professional certification training must be a certified instructor. The process of becoming a certified instructor usually involves time and money for instructor training. Additionally, if a school pays for a person to become a certified instructor, the certified instructor may leave the school. The money paid to an instructor by a private training company is much greater than the average salary of a college faculty member.
Legitimacy of Certification

The ability to pass a multiple choice certification exam does not necessarily demonstrate that a person has achieved a certain level of expertise. While a few of the certification programs require a demonstration portion to complete their exams (see Cisco), most of the professional certification programs rely exclusively on multiple choice exams. I have met many people that have passed certification exams. Some of these people do not seem to understand the material they have supposedly mastered. This is obviously very anecdotal but I believe it shows that a more thorough examination of the value of professional certification should take place.

SUMMARY

The decision to be involved in professional certification training is one that many computer educators will have to face in the next few years. In order to make an informed decision, computer educators must be aware of the many advantages and disadvantages associated with this type of training. I look forward to this debate.

COMPUTER PROFESSIONAL CERTIFICATION PROGRAMS

Independent Certification Programs

A+ Certification by the Computing Technology Industry Association (CompTIA)
http://www.comptia.org/ct_aplus/

Certified Computing Professional (CCP) and the Associate Computing Professional (ACP) by the Institute for Certification of Computing Professionals (ICCP)
http://www.iccp.org

Certified Network Professional by the Network Professional Association (NPA)
http://www.npa.org/cnp_frameset.htm

Learning Tree Professional Certification

A Sample of Vendor Specific Certification Programs

3Com Master of Network Science Credential
http://www.3com.com/support/mns/index.html

Adobe Certified Expert (ACE)
http://www.adobe.com/supportservice/training/aceprogram.html

Cisco Career Certifications
http://www.cisco.com/warp/public/10/wwtraining/certprog/

IBM Professional Certification Program
http://www.ibm.com/Education/certify/

Microsoft Certified Professional (MCP)
http://www.microsoft.com/mcp/mktg/cert.htm
Novell Professional Certifications
http://education.novell.com/certinfo/

Oracle Certified Professional
http://education.oracle.com/education/certification/

Sun Certified Programmer and Sun Certified Developer (Java certifications)
http://suned.sun.com/usa/cert_progs.html

Tivoli Professional Certification