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ASSESSING UNIVERSITY TEACHING AND RESEARCH NEEDS: WHERE SHOULD IS CANDIDATES FOCUS?

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Abstract

This research study will attempt to explore the teaching and research expectations that universities have for their potential IS professors. Most university departments have certain job skills and qualifications for which they advertise when attempting to recruit faculty members. This study will examine over 200 IS placement advertisements for the academic recruiting year 2001-2002 and identify the top teaching and research areas that universities are interested in for their new hires. The study will then investigate whether the candidates on the market have similar interests; it will then be possible to identify any existing gap between the teaching and research needs of the universities and the preferences of the job candidates. Lists of (1) most required and (2) most desired IS teaching and research areas will be drafted and suggestions for areas to concentrate on by the job candidates will be offered. Finally, this study will investigate whether IS candidates are adequately prepared to teach effectively in their areas of interest.

Keywords: IS teaching needs, IS research needs, IS career, IS faculty, content analysis, doctoral student teaching and research interests

Introduction

In the past, the demand for information systems (IS) faculty has far exceeded the supply of IS doctoral candidates (Jarvenpaa et al., 1991), and while some years the market still favors the candidates, this is not assured in the future. As a result, IS candidates are increasingly facing an uncertain job future. Universities, looking to fill IS academic positions, are bound to seek candidates who most closely fit their needs; hence, it would be helpful for IS candidates to have some idea of what will be required of them in terms of teaching and research. Matching a doctoral candidate's teaching and research interests to hiring universities is an important consideration in the job search and screening process (Lai and Chen, 1997). A candidate's teaching and research interests serve as a signal to the hiring schools as to how the candidate can contribute to the department and existing faculty.

Prior Research

There has been much research looking at the knowledge, skills and abilities of IS professionals (systems analysts, programmers, IT managers, webmasters, etc.) (Cappel, 2001; Cheney et al., 1990; Todd et al., 1995; Yen et al., 2001; Wade and Parent, 2001) as well as the match between industry requirements and academic preparation for IS jobs (Lee et al., 1995; Nelson, 1991). There has, however, been a lack of research with respect to the knowledge and skills required of IS doctoral candidates in the IS academic marketplace, especially in terms of teaching and research area requirements.

The job skills, knowledge and abilities required by IS professionals have been extensively researched and periodically updated as the set of required skills has changed, and continues to change, over the years (Cheney et al., 1990; Lee et al., 1995; Todd et al., 1995). It has been recognized that the IS profession is a changing one and hence the skills required by those within the profession must also be changing. The preparation, be it academic- or industry-based, of future IS professionals must be closely monitored in order to be able to provide properly trained, educated and employable IS professionals.

In order to assess whether the skills required by industry are being provided by university programs, researchers have periodically examined whether academic preparation of future IS professionals match industry requirements (Cappel, 2001; Lee et al., 1995; Yen et al., 2001). Similarly, it would be helpful for IS doctoral candidates who are soon to enter the academic marketplace to have an idea of what will be required of them in terms of teaching and research expertise.

Proposed Study

This research study will attempt to explore the expectations that universities have for their potential IS professors. Universities wishing to hire faculty must be careful in attracting those individuals who can teach and conduct research in the areas needed. Although the market currently tends to favor the candidate, the future is uncertain. Therefore, having an idea of what the most popular teaching and research areas are could help a doctoral student in deciding where to focus and what skills to obtain before entering the job market.

The four research questions are:

1. What are the teaching and research areas in which universities are recruiting?
2. What are the teaching and research areas in which candidates express an interest?
3. Is there a gap between the teaching and research needs of the universities and the preferences of the job candidates?
4. Are the IS candidates adequately prepared to teach effectively in their areas of interest?

Proposed Methodology and Analysis

In order to answer the first research question, this study will content analyze (Weber, 1990) over 200 IS placement advertisements for the academic recruiting year 2001-2002 and identify the top skills and knowledge requirements that schools are interested in for their new hires. Todd et al. (1995) used content analysis in a previous IS study in which they examined advertisements in newspapers for IS professionals job placements. The study will categorize them based on the number of times the job skill is listed as a requirement and the number of times it is listed as a preferred skill. Two lists will be drafted: one with the top required skills and one with the top preferred skills.

To answer the second research question, the study will also content analyze the vitas of the IS candidates who are on the market for 2001-2002 to identify the top listed skills and interests that the candidates possess. The candidates' interests will be sorted and the top teaching and research interests will be identified.

To answer the third research question, a comparison of the needs of the universities and the preferences of the job candidates will be made to determine whether a gap exists.

Although this paper has emphasized the teaching and research areas that are most in demand of IS doctorates, another important issue is that of doctorates' teaching ability and skills. In recent years there has been a noticeable growth in executive MBA programs and other external educational programs; this will force hiring universities to take into account doctorates' teaching ability (Jarvenpaa et al., 1991). It is important to look at whether doctorates are adequately prepared for university teaching requirements and whether there is a concomitant adequate preparation provided by doctoral programs. For example, one could look at whether doctorate-granting schools offer or encourage their students the possibility of teaching during their final semesters before graduation (Lai and Chen, 1997) or offer teaching workshops.

In order to answer this fourth research question, a survey of doctoral programs will be necessary to see whether there is a match between what university needs are in terms of teaching and whether IS candidates are provided with adequate preparation to meet these needs. This survey will identify whether there is a teaching requirement as well as the possibility for IS doctoral candidates to teach in their areas of interest. Universities hiring doctoral candidates may be able to put pressure on doctoral granting institutions to encourage them to develop a curriculum that incorporates teaching the required skills and knowledge. This will help ensure their graduate students are fully prepared when they graduate. The students will in turn be able to make sure that when they graduate they have the skills required of them even if they have to accumulate these skills on their own outside of the university setting through special certification courses or specialized training seminars.

Summary and Conclusion

The results of this study will be beneficial to both academic institutions as well as to graduate students. The schools will benefit from knowing whether a pool of qualified candidates exists and the candidates will be better prepared to meet the challenges they will have in their new academic teaching environment.

While this study focuses on matching university teaching and research requirements with the candidates' research and teaching preferences, actual hiring involves a more complex process, which may include an assessment of the candidate's personality, collegiality, and like factors.

Future Research

While the proposed research study looks at US IS doctoral candidates, a similar study conducted in Europe may yield significantly different results. North American and European research with respect to theoretical bases and research methodologies have been found to differ (Evaristo and Karahanna, 1997); differences in terms of teaching and research interests and requirements for IS candidates may also be dissimilar between continents.

Summaries of teaching and research requirements of doctoral candidates may prove helpful when deciding how to best prepare to enter the IS academic marketplace. Updates of such research, either bi- or tri- annually, could become a source of guidance for IS doctoral students wishing to be adequately and appropriately prepared to enter the marketplace in terms of the teaching and research requirements facing them.

Current Status and Presentation at AMCIS

Data has been collected to answer the first three research questions. Analysis is currently under way and results will be presented at the conference. The final research question will be answered through a survey of doctoral IS programs; the instrument is currently under development.

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