Accounting Information Systems Research: Is It Another QWERTY?

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Abstract

This article examines the research within accounting information systems (AIS) as found in articles published in leading accounting, management information systems, and computer science journals from 1982 to 1998. Trend analysis is performed on AIS articles found in the following journals: *The Journal of Information Systems; Advances in Accounting Information Systems; Journal of Accounting Research; The Accounting Review; Journal of Accounting and Economics, Accounting, Organizations and Society, Auditing: A Journal of Practice and Theory; Behavioral Research in Accounting; Journal of Management Accounting Research; Management Science; MIS Quarterly; Decision Sciences; Information Systems Research;* and *Communications of the ACM*, among others. The trend analysis is structured across underlying theory, research method, and information systems lifecycle topics of AIS articles in these journals. This article identifies the extant research streams in AIS, where AIS research has been published from 1982 to 1998, and seeks to provide insight into the question: should AIS exist as its own separate research domain? Is AIS research like the QWERTY keyboard (David, 1985), widely adopted due to popular demand, but ineffective and inefficient, with a better AIS research and teaching model available? © 2000 Elsevier Science Inc.

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"Fellow citizens, we cannot escape history."

Abraham Lincoln

Introduction

The QWERTY layout on computer keyboards is the most widely accepted design for keyboards used in English-speaking countries today. However, it is not the most efficient or effective (David, 1985). Its continued use is due to keyboard users being entrenched in their desire for a known and comfortable way of doing things (i.e., the keyboard design on which they learned to type), and also due to a monopolistic control of the QWERTY keyboard in the market. Similarly, this article addresses whether the existence of accounting information systems (AIS) as a singular research domain has merit, or if a more efficient and effective model should be considered. By examining what AIS research streams exist and where AIS research has been published from 1982 to 1998, this article will provide insights as to whether AIS should exist as its own separate research domain. The issue is whether AIS research is like the QWERTY keyboard (David, 1985), widely adopted due to popular demand, but ineffective and inefficient, with a better AIS research and teaching model available?

Accounting information systems research has existed for many years because of its importance to practice and education. Corporations increasingly want to recruit students with AIS knowledge and skills. As such, there is growing demand from students to take courses in AIS within business schools. Many accounting software packages have become high profile products, for example: SAP, Oracle Financials, Lawson, Baan, and PeopleSoft. These software products continue to generate increasing revenues and

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prompt global expansion for their companies. Their implementation leads to further demand for skilled employees trained in accounting systems concepts to utilize all the functionality contained within these packages. Finally, the American Institute of Certified Public Accountants (AICPA) recently reiterated the importance of information system issues, highlighting the need for improved information technology competencies for accountants and expanded information system assurance services (AICPA, 1997).

Although a review of the AIS literature assists in examining the QWERTY question, other benefits result from a detailed review of the extant literature. In order to understand the status of AIS research and to sustain or improve its contribution, it is important to understand the research published to date (i.e., the trends of research theory, methods, and topics) and where AIS research has been published (i.e., which journals). This article offers a historical synopsis of the AIS literature and provides insight into the AIS research performed over a 17-year period through the categorization and classification of that research.

The AIS research examined in this study includes all articles published in *The Journal of Information Systems* since its inception, and all those published in the *Advances in Accounting Information Systems* since it was established. In addition, this study includes the AIS research published in the top accounting and management information systems (MIS) journals since 1982 as ranked by Arnold (1993), Hardgrave and Walstrom (1997), and Hull and Wright (1990). Consequently, this work provides a richer and more comprehensive perspective than other AIS research reviews (e.g., Mitchusson and Steinbart, 1993).

To understand what qualifies as AIS research in this article, it is important to establish what is encompassed in AIS research. No widely accepted and agreed upon definition of AIS research exists. A formal boundary for AIS research does not exist, rather, AIS overlaps with its parent domains of MIS and accounting in a multifaceted and blended fashion. Various researchers have tried to delineate the field. McCarthy (1990, vi) stated that AIS research was related to its "parent domains of MIS and accounting," but had the distinguishing feature of investigating issues about "transaction processing for accountability purposes of an organization" (McCarthy, 1990, vi). Borthick (1992, v) stated that AIS involved helping decision makers "get the information they want, when they want it, in the form they want it."

Sutton (1992) complained that AIS research focusing on applied issues, in particular electronic data processing (EDP) audit and expert systems, had his-

torically resulted in an overly narrow perspective on what AIS research should be. Consistent with McCarthy (1990), Sutton stated that AIS research had endpoints in accounting and MIS. However, Sutton (1992) argued that AIS research is not fundamentally different than information systems research, and that it would be difficult to find an area of information systems that does not affect the accounting domain. He also called for more AIS research grounded in the psychology, management, and economics literatures.

While there is no specific definition of what constitutes AIS research, there seems to be consensus that it has accounting and management information systems as parent disciplines (or endpoints on a continuum). There also seems to be consensus that AIS (and accounting and information systems research) draws on theories from other disciplines such as economics and psychology. Whether AIS is fundamentally different than information systems or accounting research is an unanswered question.

Weber (1987) argued that information systems research is a doomed science since it does not have a specific, well-defined paradigm to guide its research. If this is true, then AIS research will have a similar fate, as no well-defined paradigm exists to guide it. Nonetheless AIS research, like information systems research, continues to exist, and multiple research themes are evident. This article combines the definitional expositions of McCarthy, Borthick, and Sutton when determining the inclusion of articles considered to be AIS-related.

This article is organized as follows. First, the scope of the work performed is presented, including a listing of the journals reviewed. Then, the approach followed in applying the classification scheme and in gathering information about each AIS paper is described, along with evidence of how reviews and searches were performed. Next, the results of analysis are presented for (1) what AIS research streams exist, and (2) where it has been published, since 1982. This section ends with a comparison of AIS to MIS research trends and a discussion of whether AIS is another QWERTY. Finally, major findings are summarized.

Scope

Journals were reviewed from 1982 or from their respective initial publication dates through 1998. The intent was to accumulate as complete as possible a body of current AIS research. AIS-related papers were gathered from the AIS, MIS, and accounting journals, as well as one broadly based computer science journal (see list in Table 1). The journals included in this study reflect all of the top 15 AIS jour-