Current Status and Discussion of Teaching in Management Information Systems Course

Xiaohui Wang
School of Management Science and Engineering, Shandong University of Finance and Economics, Jinan, Shandong, China

Abstract: In recent years, the significance of Management Information Systems (MIS) has been called into question, sparking widespread concern about the need for innovation and reform in its course content. This paper begins by examining the current status and role of the MIS course, followed by a survey conducted to gather student feedback. Through the analysis of the survey results, it was discovered that students' engagement with the course is relatively moderate. The majority of students do not have a habit of previewing lessons, rarely approach teachers for guidance, and seldom participate in classroom discussions. These findings suggest that the quality of the course needs significant improvement. In light of these challenges, the paper concludes with recommendations aimed at enhancing the overall teaching quality of the MIS course.

Keywords: Higher Education; Case Studies; Textbooks; AI Technology

1. Introduction

The Management Information Systems (MIS) course is a multidisciplinary subject that spans across management science, computer science, information science, systems science, and mathematics. As a result, teaching MIS requires a solid theoretical foundation and its close ties to computer science make it a highly practical and application-oriented discipline [1]. Since the late 1980s, the MIS course has evolved from being nonexistent to gradually gaining widespread adoption. Its growing importance has been acknowledged by numerous academic institutions, with many universities incorporating it into their curricula as a compulsory core course. However, in recent years, the centrality of the MIS course has been increasingly questioned, raising concerns about its effectiveness and relevance [2, 3]. This shift has led some universities to eliminate the MIS course from certain economic and management programs, while others have reduced its teaching hours or reclassified it from a compulsory to an elective course. Such trends call for careful attention and the need for innovative teaching reforms to enhance the course's effectiveness and improve educational outcomes.

This paper is divided into three sections: The first section examines the differences in the focus and scope of the MIS course across various universities. The second section presents an analysis of student feedback gathered through a questionnaire survey. The third section reflects on the teaching experience of MIS, offering recommendations and methods to improve the quality of its instruction and stimulate further development in this field.

2. Teaching Focus and Scope

Over the past 30 years, the teaching focus and scope of MIS have evolved significantly. Initially, the course was marked by a fragmented approach, with a wide variety of topics being explored. However, as the field has developed, a more standardized consensus has emerged regarding the key areas that should be covered. These include fundamental concepts related to information and management, various development methodologies and processes, and the application of information technology in management. These are the core subjects typically emphasized in the MIS curricula of most universities today.

Nevertheless, an analysis of the textbooks and course content used across different universities reveals significant variations in the teaching approach. These differences are largely influenced by factors such as the specific strengths of each institution, the backgrounds of their students, and the varying disciplines they prioritize. For instance, technical universities often focus their MIS courses on development techniques, methodologies, and the technical aspects of the development process. On the other

hand, universities with a stronger emphasis on economics and finance tend to highlight the practical application of MIS and include more case studies. Comprehensive universities often seek a balance between the technical and applied aspects of MIS, with variations in emphasis depending on the institution [4]. The differences in the focus and scope of such teaching are primarily influenced by the expertise of both the teachers and the students.

These differences in course content and focus are not only natural but necessary. MIS is a broad subject, and it's more effective to concentrate on the areas most relevant to students' studies and careers. A tailored approach, focusing on specific topics rather than a broad "one-size-fits-all" curriculum, usually results in better learning and understanding.

3. Survey and Analysis

To better understand students' perceptions and opinions on the MIS course, a questionnaire was administered to 209 undergraduate students majoring in Information Management over the past three years. The sample group had a gender ratio that was nearly balanced. A total of 209 questionnaires were distributed, with 202 valid responses received.

The questionnaire was divided into three main sections: Course Content and Importance, Teaching Methods, and Course Evaluation.

Based on the analysis of the survey results, the following conclusions were drawn:

3.1 Perception of the Importance of the Course

Regarding the significance of the MIS course, 54% of students regarded it as an important core foundational course within their major. Another 19% considered it important but ranked it as less crucial compared to other core courses. Approximately 19.8% of students believed the course had limited practical use and could be considered optional. Only 7.2% of students expressed indifference or lack of interest. The overall findings suggest that the majority of students recognize the course' s importance in a rational and positive manner.

3.2 Course Enjoyment

When asked about their enjoyment of the course, 23% of students explicitly stated that they did not like the subject, while 34% expressed that they enjoyed it. The remaining 43% felt neutral—neither particularly interested nor uninterested. This indicates that most students do not have a strong aversion to the MIS course. However, the 23% who dislike the course is a significant proportion and warrants attention, as it highlights areas for improvement in course content, classroom environment, teaching methods, and case study analysis.

3.3 Learning Habits and Methods

Regarding learning habits and methods, the survey revealed that most students did not have ideal study habits for the course. A total of 76% of students did not engage in pre-class preparation, with only 8.2% consistently previewing upcoming lessons. Moreover, 86% of students only occasionally reviewed course materials or did not review them at all, and only a small number followed a structured review schedule. This suggests a lack of challenging and engaging post-class assignments. When encountering difficulties in the course, 36% of students occasionally sought help from their teachers, while 57% had never asked for assistance. Only a few students regularly consulted their teachers. Additionally, 63% of students took handwritten notes during class, although 16.5% never took notes, indicating that while most students recognize the importance of note-taking, some still overlook it.

3.4 Participation in Case Discussions and Analysis

Regarding participation in case discussions and analysis during class, 22.6% of students reported that they had never spoken in class. 28.7% participated only occasionally, while the remaining students were able to understand the core concepts and principles of the course, and, based on this understanding, actively engaged in group work and case analysis.

3.5 Preferred Learning Methods for the Course

Survey results on the best learning approach for the MIS course showed that 87% of students relied primarily on in-class learning, with over 80% mastering the content through lectures. Nearly 48% of students considered memorization to be the dominant learning method for the course, while 32.6% emphasized the importance of case studies and suggested that learning to apply knowledge flexibly would enhance their understanding of information systems. These results indicate that some

students may have a skewed understanding of the course' s learning methods, overemphasizing memorization at the expense of application and critical thinking.

4. Recommendations for Enhancing Course Teaching

Over the course of my more than a decade of teaching MIS, I have worked with various versions of textbooks and engaged with students from a range of disciplines. Reflecting on each semester, I consistently gain new insights from both the successes and challenges of the course. Based on the findings of the recent survey, I would like to offer the following recommendations to improve teaching effectiveness:

4.1 Tailor Textbooks to Different Majors

As information technology continues to play an increasingly vital role in society, many universities now offer MIS as either an elective or a mandatory course in multiple disciplines, including business administration, information management, and computer science. However, a common issue is that the same textbook and course content are often used across all these different fields, without accounting for the distinct characteristics of each major. This lack of differentiation can create learning challenges for students. For instance, some content may be overly simplistic for computer science students, while it may be difficult to grasp for business administration students. Topics like network technologies, database systems, and emerging areas such as the Internet of Things (IoT) and data mining are often difficult to digest for those without a technical background. Many business students, for example, mistakenly view MIS as a computer science course, directing their attention to learning complex technical concepts, rather than understanding the integration of management practices and information systems. Conversely, certain textbooks may focus too heavily on management theories, which may overwhelm students from more technical backgrounds. To address these challenges, I recommend selecting different textbooks and teaching materials based on the students' majors. Textbooks should be more carefully chosen to align with the specific needs of each discipline, ensuring that the content is relevant and engaging. By tailoring the course material to the students' academic focus, we can foster a deeper understanding of MIS and improve student engagement in the subject.

4.2 Emphasize Scenario Simulations and Case Studies

In teaching MIS, it is crucial to prioritize the use and analysis of case studies. Various methods such as video presentations, case discussions, and role-playing exercises can be employed to create a virtual reality within the classroom, allowing students to engage with the material in a more interactive and immersive manner. Given that university students often lack substantial societal experience, merely discussing the theoretical applications of information technology and management in MIS—such as Customer Relationship Management (CRM), Supply Chain Management (SCM), and Business Intelligence [4]—can be insufficient for fostering deep understanding. Without practical context, students are likely to approach these concepts as abstract theoretical knowledge, failing to grasp their real-world significance. By simulating a corporate scenario in class, where the current situation of a company and its information systems applications are presented, students can collectively analyze the company's status and contribute their strategies and solutions. This hands-on approach encourages more active participation and enhances the learning experience. Additionally, providing opportunities for students to visit companies or even intern within organizations would allow them to experience the practical application of MIS firsthand. This exposure would reinforce their understanding of the subject matter and significantly improve their learning outcomes.

4.3 Types and Selection of Case Studies

As the teaching of MIS progresses, an increasing number of case studies have been integrated into textbooks and classrooms, becoming essential tools for teachers in delivering the course. However, despite several years of development and application, case-based teaching in MIS has not achieved the same prominent results as in other management courses such as marketing or human resource management [5]. The key issue, in many cases, lies in the types and content of the case studies selected. For instance, when teaching students from business and economics backgrounds, an overemphasis on network structure analysis or database-related discussions in case studies can present a challenge. Such

technical content may overwhelm students, making it difficult for them to focus on the core concepts and understanding the case itself. Conversely, for students from technical disciplines such as computer science, cases laden with business jargon, especially terms related to finance and accounting, can lower the comprehensibility of the material. Therefore, it is crucial to design and select case studies that are appropriately tailored to the specific academic backgrounds of the students. Doing so not only helps improve their understanding and acceptance of the case study material but also enhances their engagement and interest in the learning process.

4.4 Leverage AI to Enhance Classroom Interactivity and Teaching Quality

The integration of AI technology has brought about a profound transformation in the field of education. Some AI-powered educational products now feature adaptive learning systems that automatically analyze and adjust teaching strategies based on individual students' learning differences. For example, these systems can provide personalized explanations on difficult concepts tailored to each student' s needs [6]. It is recommended that the MIS course incorporate AI-based educational tools. These tools not only enable teachers to track students' progress and learning behaviors but also ensure that each student can master the course content at their own pace, thereby fostering a more personalized and effective learning experience [7].

5. Conclusions

Overall, the teaching history of MIS has spanned several decades, during which numerous well-established knowledge frameworks and teaching methods have been developed. Through the course, university students not only come to understand the role of information in management but also master the systematic approaches to developing information resources.

However, it is evident from survey results that university students currently do not place significant emphasis on the MIS course, nor do they express strong interest in it. This presents a heightened challenge for teachers in enhancing classroom engagement and teaching effectiveness. Moreover, most students lack the habit of preparing for classes, seldom seek guidance from teachers, and rarely participate actively in lessons. The challenge, therefore, lies in finding ways to stimulate students' interest in the subject and increase their participation.

Undoubtedly, improving the quality and impact of the course requires collaborative efforts from faculty members and experts across universities. It is hoped that with the continuous advancement of the information society, the MIS course will undergo redefinition and development, offering students a broader range of knowledge and skills that are crucial in today' s rapidly evolving technological landscape.

References

[1] Xue Huacheng. Management Information Systems (7th ed.). Beijing: Tsinghua University Press, 2024.

[2] Zhong Jinzhong, Wang Kang & Cheng Zhou. Teaching Content Design of Curriculum of Ideology and Politics in Management Information System. Logistics Sci-tech. 2024 (4): 179-184.

[3] Huang Tiyun, & Li Yijun. Management Information Systems (7th ed.). Beijing: Higher Education Press. 2019.

[4] Hao Mei, Gao Xuedong & Pan Jing. Exploration of Teaching Reform in "Management Information Systems" under Team Task-Driven Approach. China Urban Finance. 2019 (12): 73-74.

[5] Shen Yan, Fan Mingyue & Liu Chunhua. Implementation of the Case-Association Platform and Its Application in MIS Teaching. Distance Education in China. 2015 (1): 71-76.

[6] Yang Yuxiang, Huang Jiye & Wu Zhanxiong. Design of the Implementation Plan for Blended Online and Offline Teaching Model. Course Education Research. 2015 (5): 3-4.

[7] Zhang Cheng. Research on the Reform of the Management Information Systems Course Based on Sandbox Training. Huazhang Journal. 2013 (12): 63-65.

