ENHANCING HUMAN–COMPUTER INTERACTION IN MANAGEMENT INFORMATION SYSTEMS: A CONTEMPORARY PERSPECTIVE

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ABSTRACT

Human–Computer Interaction (HCI) has become a cornerstone of modern Management Information Systems (MIS), transforming how users engage with organizational technologies. As MIS continues to evolve with advancements in artificial intelligence, data analytics, and automation, enhancing user interaction has become essential for improving decision-making, productivity, and system acceptance. This article explores the growing significance of HCI within MIS, highlighting the need for user-centered design, intuitive interfaces, and adaptive systems. The discussion underscores how effective HCI contributes to higher user satisfaction, reduced errors, and better organizational performance. Ultimately, the integration of advanced HCI principles into MIS strengthens the synergy between people and technology, ensuring more efficient and reliable information management.

Keywords: Human–Computer Interaction; Management Information Systems; User Experience; Interface Design; Usability; Decision Support; Information Technology Adoption; Cognitive Load; Interaction Design; User-Centered Design

INTRODUCTION

Human–Computer Interaction (HCI) plays a transformative role in shaping the effectiveness and acceptance of Management Information Systems (MIS) across modern organizations. As businesses increasingly rely on digital platforms for operational efficiency and strategic decision-making, the quality of user interaction with these systems has become a critical determinant of overall performance. MIS traditionally focuses on managing data, supporting processes, and facilitating decisions; however, the success of these systems largely depends on the extent to which users can seamlessly and intuitively interact with them.

Effective HCI in MIS emphasizes designing interfaces that align with human cognitive capabilities, minimizing errors, and reducing unnecessary complexities that hinder productivity. With the growing complexity of organizational environments, users expect systems that are not only functional but also intuitive, responsive, and customizable. This shift has placed user-centered design at the forefront of MIS development. Modern organizations now prioritize systems that accommodate the diverse needs, skills, and preferences of users, acknowledging that poor interaction design can lead to system rejection, inefficiencies, and decision-making delays.

Technological advancements such as artificial intelligence, voice interfaces, data visualization tools, and adaptive dashboards have revolutionized how users engage with MIS. These innovations aim to simplify interactions, automate repetitive tasks, and offer personalized experiences. For example, intelligent systems that predict user needs and provide real-time

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recommendations significantly enhance decision support capabilities. Moreover, advanced visualization techniques help transform complex datasets into understandable insights, reducing cognitive load and supporting faster and more accurate decisions.

Despite these advancements, challenges remain. Ensuring accessibility, maintaining system security without compromising usability, and addressing diverse user expectations require continuous improvements in HCI design. Organizations must invest in user training, iterative system evaluation, and ongoing feedback mechanisms to create MIS that remain relevant and effective in dynamic business environments.

In essence, HCI serves as the bridge between human users and organizational technologies. When effectively integrated, it enhances system efficiency, encourages user acceptance, and supports better decision-making, ultimately contributing to improved organizational performance.

CONCLUSION

Human–Computer Interaction has become an essential dimension of Management Information Systems, shaping how individuals and organizations utilize technological tools for operational and strategic purposes. As MIS continues to expand in complexity and functionality, prioritizing intuitive and user-centered interaction design is crucial for maximizing system performance and user satisfaction. Through the incorporation of adaptive interfaces, intelligent support tools, and user-friendly designs, HCI strengthens the relationship between humans and technology, enabling more effective information management. Continued investment in HCI research and design will ensure that MIS remains aligned with the evolving needs of users, fostering greater efficiency, accuracy, and organizational success.

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