



# AIS SIGHCI Newsletter

Association for Information Systems  
Special Interest Group on Human Computer Interaction

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## A Message from the Chair

Dear fellow SIGHCI members and friends,

As some of you may already know, my term as the AIS SIGHCI Chair will be coming to an end at the end of June this year. It's hard to believe how quickly the time has flown by, and it's bittersweet to say goodbye to this role that I have held for the past two years. It has been an honor and a privilege to serve as your chair, and I will always treasure the experiences and memories that I have gained during this time.

However, I want to assure you that even though I will be stepping down as chair, my commitment and support for SIGHCI and its members will not waver. I will continue to be actively involved in the group as the Past Chair, providing guidance and support to the incoming chair and the executive board as needed.

Looking back, I am proud of what we have achieved as a group, but I also recognize that there are many challenges ahead. As we all know, the field of human-computer interaction is constantly evolving and presenting new opportunities and complexities. With the rise of new technologies such as artificial intelligence, virtual reality, and the metaverse, we must continue to push the boundaries of research and education in this field.

But amidst these challenges, there is also hope. I have seen firsthand the incredible passion, creativity, and dedication of our SIGHCI members, and I am confident that together, we can continue to make a positive impact on the field of HCI. We must count on the support of our community to drive innovation, advance knowledge, and foster collaboration and dialogue.

As I prepare to pass on the torch to the incoming chair, I am filled with gratitude and optimism for the future of SIGHCI. I am excited to see what new ideas and initiatives will be brought forth by the incoming leadership and the members, and I know that SIGHCI will continue to thrive and make important contributions to the field of human-computer interaction.

Thank you all for your support and camaraderie over the years. It has been an honor to serve as your chair, and I look forward to continuing to work with you all in the years to come.

Best Wishes,  
Eric Lim  
AIS SIGHCI Chair



# Review: Pre-ICIS HCI Workshop 2022

## Pre-ICIS Workshop on HCI Research in MIS At the International Conference on Information Systems (ICIS 2022)

Copenhagen, Denmark (Hybrid Conference)  
December 11, 2022

### Workshop Co-Chairs:

Constantinos K. Coursaris, HEC Montréal (constantinos.coursaris@hec.ca)  
Eric T. K. Lim, UNSW Sydney (e.t.lim@unsw.edu.au)

### Program Co-Chairs:

Mark Grimes, University of Houston (gmgrimes@bauer.uh.edu)  
Chee-Wee Tan, Copenhagen Business School (ct.digi@cbs.dk)

The Pre-ICIS Workshop on HCI Research in MIS at the International Conference on Information Systems (ICIS2022) received 41 submissions of which 15 were completed research papers and 26 were research-in-progress papers. After a rigorous review process, the workshop accepted 9 completed research papers and 11 research-in-progress papers for presentation, giving an acceptance rate of 49%. The workshop also accepted 4 completed research submissions and 8 research-in-progress submissions for Rapid Research Roundtable. We are extremely appreciative of the time and effort by everyone involved in making the workshop a success.



# Review: Human Computer / Robot Interaction Track at ICIS 2022

## Human Computer / Robot Interaction Track at the International Conference on Information Systems (ICIS 2022)

Copenhagen, Denmark  
December 9 – 14, 2022

### Track Co-Chairs:

Kathrin Figl, University of Innsbruck (kathrin.figl@uibk.ac.at)  
Weiyin Hong, Hong Kong University of Science and Technology (whong@ust.hk)  
Traci Hess, University of Massachusetts, Amherst (thess@isenberg.umass.edu)

The ICIS 2022 Human Computer / Robot Interaction Track has attracted high quality submissions in the areas of IS, technology usage behaviors and psychology, understanding and fostering trust in human-robotic interactions, and robotic interface designs. Overall, the track received 31 Completed Research submissions and 30 Short-paper submissions. We accepted 9 Completed Research submissions and 7 Short-paper submissions (26% acceptance rate). The sessions were well-attended and there was lively, thoughtful discussion.



## Review: HCI in Digital Economy Mini-Track at HICSS 2023

### Human Compute Interaction in Digital Economy Mini-Track At the Hawaii International Conference on System Sciences (HICSS 2023)

Maui, Hawaii  
January 3 – 6, 2023

Christoph Schneider, University of Navarra (cschneider@iese.edu)  
Joe Valacich, University of Arizona (valacich@arizona.edu)  
Jeffrey Jenkins, Brigham Young University (jeffrey\_jenkins@byu.edu)

The HICSS 2023 HCI Mini-track attracted a number of high quality submissions in the areas of design of user interfaces, accessibility, digital nudging, and emergent technologies and methods. Altogether, the track received 12 submissions, with 6 papers accepted. With the conference being back as a fully in-person event, the two sessions were well attended. We will continue to hold this mini-track in 2024. HICSS-57 will be on the island of Oahu, at the Hilton Hawaiian Village at Waikiki Beach.



## Future Activities Sponsored by AIS SIGHCI

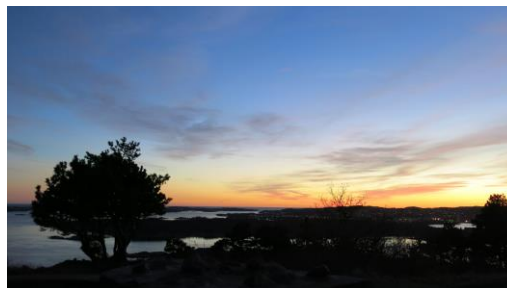
### Design Research and Methods in Information Systems Track at European Conference on Information Systems (ECIS 2023)

Kristiansand, Norway  
June 11 – 16, 2023

#### Track Co-Chairs:

Stefan Morana, Saarland University, Germany (stefan.morana@uni-saarland.de)  
Marc T.P. Adam, The University of Newcastle (marc.adam@newcastle.edu.au)  
Monica Chiarini Tremblay, William & Mary (monica.tremblay@mason.wm.edu)

For more details, please visit <https://ecis2023.no>



**HCI and Robotic Interface Design Track  
at the Pacific Asia Conference on Information Systems (PACIS 2023)**

**Nanchang, China  
July 8 – 12, 2023**

**Track Co-Chairs:**

Lingyun Qiu (Peking University)  
Cheng Yi (Tsinghua University)  
Mengxiang Li (Hong Kong Baptist University)

For more details, please visit <https://pacis2023.aisconferences.org>



**Human-Centric IS Design, Development, and Use Track  
at the Pacific Asia Conference on Information Systems (PACIS 2023)**

**Nanchang, China  
July 8 – 12, 2023**

**Track Co-Chairs:**

Xinwei Wang (University of Auckland)  
Jonathan Hua Ye, (University of Oklahoma)  
Xixian Peng (Zhejiang University)

For more details, please visit <https://pacis2023.aisconferences.org>



**International Conference on HCI in Business, Government and Organizations (HCIBGO)  
Affiliated with HCII 2023**

**Copenhagen, Denmark  
July 23 – 28, 2023**

**Conference Co-Chairs:**

Fiona Fui-Hoon Nah, City University of Hong Kong, Hong Kong  
Keng Siau, City University of Hong Kong, Hong Kong

For more details, please visit <https://2023.hci.international/hcibgo>



## Human Computer Interaction Track at Americas Conference on Information Systems (AMCIS 2023)

Panama City, Panama  
August 10 – 12, 2023

### Track Co-Chairs:

Dezhi Wu, University of South Carolina (dezhiwu@cec.sc.edu)  
Jeff Jenkins, Brigham Young University (jeffrey\_jenkins@byu.edu)  
Miguel I. Aguirre-Urreta, Florida International University (miguel.aguirreurreta@fiu.edu)

For more details, please visit <https://amcis2021.aisconferences.org>



## Recent Publications in AIS Transactions on HCI (THCI)

THCI is ranked "A" in the 2019 Australian Business Deans Council (ABDC) Journal Quality List - <https://abdc.edu.au/research/abdc-journal-list/>.

### December 2022 issue of THCI:

The December 2022 issue of THCI, which is a special issue on the theme of "Human-Centered Design for Individual and Social Well-being" showcases five of the best research papers expanded and fast-tracked from the Cognitive Research in IS track and the Human-Computer Interaction track of the 2011 Americas Conference on Information Systems. This special issue is co-edited by Jia Shen, Luca Iandoli, and Miguel Aguirre-Urreta.

In the first paper entitled "Design Principles for Personalized Assistance Systems that Respect Privacy," Marleen Voss, Olga Bosak, Mark Hoebertz, Felix Mohsenzadeh, Maximilian Schnebbe, Jens Poepfelbus, and Maik Eisenbeiss developed seven design principles for personalized assistance systems based on a systematic literature review, user personas, and European Union requirements for privacy by design and privacy by default. These design principles were evaluated in a focus group and an expert workshop to help mitigate adoption barriers due to privacy concerns. In the second paper entitled "The Role of the Privacy Calculus and the Privacy Paradox in the Acceptance of Wearables for Health and Wellbeing," Thomas Jernejcic and Omar El-Gayar conducted a survey of 225 users and examined the influence of privacy calculus on disclosure and acceptance, and the role of health status in creating a privacy paradox. In the third paper entitled "Developing an Inclusive Educational Game Using a Design Science Research Gestalt Method," Anju Mehta, Justin Bond, and Chetan Sankar used a design science research Gestalt methodology to develop a gender-inclusive educational game that enhanced student performance more than traditional round-table discussions and resulted in greater performance improvement by female students than male students. In the fourth paper entitled "How to Achieve Ethical Persuasive Design: A Review and Theoretical Propositions for Information Systems," Dennis Benner, Sofia Schöbel, Andreas Janson, and Jan Marco Leimeister conducted a systematic literature analysis along with 20 interviews to develop a set of propositions that enhance ethical persuasive designs. In the fifth and last paper entitled "Designing Process-based Chatbots in Enterprises: The Case of Business Travel Organization Considering the Users' Perspective and Business Value," Raphael Meyer von Wolff, Sebastian Hobert, and Matthias Schumann applied a design science approach to develop and implement process-support chatbots (as opposed to customer-facing chatbots) to illustrate the potential and advantages of using chatbot technology to support business-oriented processes.

You can download the papers in this issue from <https://aisel.aisnet.org/thci/vol14/iss4/> or the direct links provided below. You can also download the papers published in THCI by visiting the AIS E-Library (<http://aisel.aisnet.org/>) or the journal website at <http://aisel.aisnet.org/thci/>.

In this issue (Volume 14, Issue 4):

### Paper 1 (Human-Centered Design for Individual and Social Well-being: Editorial Preface):

Shen, J., Iandoli, L., & Aguirre-Urreta, M. (2022). Human-centered design for individual and social well-being: Editorial preface. *AIS Transactions on Human-Computer Interaction*, 14(4), pp. 446-460. DOI: 10.17705/1thci.00175

Available at: <https://aisel.aisnet.org/thci/vol14/iss4/1/>



Abstract:

As digital technology use becomes widespread, its unintended consequences ranging from personal health to societal righteousness are under more scrutiny. Increasingly, digital designers are accused of not being considerate enough of the depth of their creations, and their impacts on our well-being. In this special issue, we explore an alternative, genuinely human-centered approach to technology design focusing on well-being and making our interactions with digital technology more meaningful, purposeful, and sustainable. To this end, the editorial starts with a brief review of the history of research that led to the growing field of digital well-being. We then introduce the Digital Well-being Design Framework, which goes beyond the ego-centric approach in human-centered design, and is multi-layered with self (intrapersonal), social (interpersonal), and transcendent (extra-personal) levels. Similar topics in related AIS journals are summarized, followed by the application of our framework to introduce and position the papers in this special issue. Our special issue aims to bring the topic of digital well-being to the forefront of the information systems research community and launch a new era of genuinely human-centered design.

Paper 2 (Design Principles for Personalized Assistance Systems that Respect Privacy):

Voss, M., Bosak, O., Hoebertz, M., Mohsenzadeh, F., Schnebbe, M., Poeppelbuss, J., & Eisenbeiss, M. (2022). Design principles for personalized assistance systems that respect privacy. *AIS Transactions on Human-Computer Interaction*, 14(4), pp. 461-489. DOI: 10.17705/1thci.00176

Available at: <https://aisel.aisnet.org/thci/vol14/iss4/2/>

Abstract:

Personalized assistance systems (PAS) provide real-time assistance tailored to individual users to improve efficiency in the workplace. PAS communicate dynamically with users through wearable computing devices. To deliver such personalized assistance, PAS need personal data from the individuals who wear them. However, concerns over data protection and security can negatively influence the extent to which users accept personalized assistance systems. The key aspects in this regard that the literature currently lacks include data protection law and the employee perspective. Hence, we develop seven design principles for PAS that respect user privacy through employee-determined approaches to data collection and use. We developed the principles based on a systematic literature review, user personas, privacy control, and European Union legal requirements for privacy by design and privacy by default. Our design principles, which we evaluated in a focus group and an expert workshop, provide a framework to help practitioners and software developers mitigate adoption barriers due to privacy concerns. Our study also contributes to the theoretical discussion of current developments in personalized assistance in the workplace by providing a new perspective on ensuring employees accept the required data collection and use.

Paper 3 (The Role of the Privacy Calculus and the Privacy Paradox in the Acceptance of Wearables for Health and Wellbeing):

Jernejcic, T., & El-Gayar, O. (2022). The role of the privacy calculus and the privacy paradox in the acceptance of wearables for health and wellbeing. *AIS Transactions on Human-Computer Interaction*, 14(4), pp. 490-522. DOI: 10.17705/1thci.00177

Available at: <https://aisel.aisnet.org/thci/vol14/iss4/3/>

Abstract:

The Internet along with innovations in technology have inspired an industry focused on designing portable devices, known as wearables that can track users' personal activities and wellbeing. While such technologies have many benefits, they also have risks (especially regarding information privacy and security). These concerns become even more pronounced with healthcare-related wearables. Consequently, users must consider the benefits given the risks (privacy calculus); however, users often opt for wearables despite their disclosure concerns (privacy paradox). In this study, we investigate the multidimensional role that privacy (and, in particular, the privacy calculus and the privacy paradox) plays in consumers' intention to disclose their personal information, whether health status has a moderating effect on the relationship, and the influence of privacy on acceptance. To do so, we evaluated a research model that explicitly focused on the privacy calculus and the privacy paradox in the healthcare wearables acceptance domain. We used a survey-oriented approach to collect data from 225 users and examined relationships among privacy, health, and acceptance constructs. In that regard, our research confirmed significant evidence of the influence of the privacy calculus on disclosure and acceptance as well as evidence of the privacy paradox when considering health status. We found that consumers felt less inclined to disclose their personal information when the risks to privacy outweighed benefits; however, health status moderated this behavior such that people with worse health tipped the scale towards disclosure. This study expands our previous knowledge about healthcare wearables' privacy/acceptance paradigm and, thus, the influences that affect healthcare wearables' acceptance in the privacy context.

Paper 4 (Developing an Inclusive Educational Game Using a Design Science Research Gestalt Method):

Mehta, A., Bond, J. L., & Sankar, C. S. (2022). Developing an inclusive education game using a design science research Gestalt method. *AIS Transactions on Human-Computer Interaction*, 14(4), pp. 523-547. DOI: 10.17705/1thci.00178

Available at: <https://aisel.aisnet.org/thci/vol14/iss4/4/>

Abstract:

As business firms seek a diverse talent pool to attain a competitive advantage, the need for inclusive education has become even more apparent across academic domains. An essential way to impart inclusive education today includes digital tools such as educational games. In this study, we apply the design science research (DSR) Gestalt methodology to develop an inclusive educational game that would advance learning for both male and female engineering students. We also assess the game's efficacy in achieving performance improvements using a survey-based experimental design. Results demonstrate that the game resulted in greater student performance compared to traditional round-table discussions. Additionally, the game had a greater positive impact on female students' performance compared to male students. The study shows that one can apply the DSR Gestalt method to develop gender-inclusive educational games.

Paper 5 (How to Achieve Ethical Persuasive Design: A Review and Theoretical Propositions for Information Systems):  
Benner, D., Schöbel, S., Janson, A. & Leimeister, J. M. (2022): How to achieve ethical persuasive design: A review and theoretical propositions for information systems. *AIS Transactions on Human-Computer Interaction*, 14(4), pp. 548-577. DOI: 10.17705/1thci.00179  
Available at: <https://aisel.aisnet.org/thci/vol14/iss4/5/>

**Abstract:**

Persuasive system design (PSD) is an umbrella term for designs in information systems (IS) that can influence people's attitude, behavior, or decision making for better or for worse. On the one hand, PSD can improve users' engagement and motivation to change their attitude, behavior, or decision making in a favorable way, which can help them achieve a desired outcome and, thus, improve their wellbeing. On the other hand, PSD misuse can lead to unethical and undesirable outcomes, such as disclosing unnecessary information or agreeing to terms that do not favor users, which, in turn, can negatively impact their wellbeing. These powerful persuasive designs can involve concepts such as gamification, gambification, and digital nudging, which all have become prominent in recent years and have been implemented successfully across different sectors, such as education, e-health, e-governance, e-finance, and digital privacy contexts. However, such persuasive influence on individuals raises ethical questions as PSD can impair users' autonomy or persuade them towards a third party's goals and, hence, lead to unethical decision-making processes and outcomes. In human-computer interaction, recent advances in artificial intelligence have made this topic particularly significant. These novel technologies allow one to influence the decisions that users make, to gather data, and to profile and persuade users into unethical outcomes. These unethical outcomes can lead to psychological and emotional damage to users. To understand the role that ethics play in persuasive system design, we conducted an exhaustive systematic literature analysis and 20 interviews to overview ethical considerations for persuasive system design. Furthermore, we derive potential propositions for more ethical PSD and shed light on potential research gaps.

Paper 6 (Designing Process-based Chatbots in Enterprises: The Case of Business Travel Organization Considering the Users' Perspective and Business Value):

Meyer von Wolff, R., Hobert, S., & Schumann, M. (2022). Designing process-based chatbots in enterprises: The case of business travel organization considering the users' perspective and business value. *AIS Transactions on Human-Computer Interaction*, 14(4), pp. 578-623. DOI: 10.17705/1thci.00180  
Available at: <https://aisel.aisnet.org/thci/vol14/iss4/6/>

**Abstract:**

Chatbots have attracted much research attention in recent years, and organizations have increasingly begun applying them in everyday working life. However, researchers have rarely investigated how chatbots can support everyday tasks in enterprises. As such, we lack design knowledge for chatbots that support internal business processes since research has mostly examined customer-facing use cases. Notably, researchers have rarely considered chatbots' economic and user-related effects, which, thus, remain unknown. To address this gap, we conducted a design science research study to survey a process-based chatbot application for business processes. From examining the scenario, we deduced design principles and implemented a software artifact. We evaluated the concept with 69 participants and surveyed the users' perspective in terms of design and acceptance and the organizational perspective in terms of process efficiency and quality. In doing so, 1) we derived six design principles for process-based chatbots and implemented a respective chatbot, which enabled a user-adapted process and provided situational-dependent input options and support; 2) we found that users had a positive attitude towards using chatbots for business processes in terms of user experience and acceptance; and 3) the process performed at an economically efficient level that compared well with existing solutions and that IT affinity and prior experience had no influence on performance. Furthermore, our solution improved the process quality compared to the existing solution.

**The March 2023 Issue:**

The March 2023 issue of THCI comprises four research articles and one research commentary.

The first paper "Overcoming Challenges to Enable the Potential of Metaverse Platforms: A Qualitative Approach to Understand Value Creation" by Sofia Marlena Schöbel and Fabian Tingelhoff interviewed 34 metaverse experts to identify the challenges, potential, and value associated with the metaverse. The second paper "Theory-driven Visual Design to Support Reflective Dietary Practice via mHealth: A Design Science Approach" by Nadja Leipold, Hanna Hauptmann, Markus Böhm, Mira Madenach, Martin Lurz, Georg Groh, Kurt Gedrich, and Helmut Krcmar developed theory-driven guidelines for "reflection-in-action" and "reflection-on-action." The third paper "Gender Effects in Directed versus Incidental Learning in a 3D Virtual World Simulation" by Surinder Kahai, Rebecca Jestice, and Rui Huang conducted an experiment and found that incidental learning benefits women and directed learning benefits men in the virtual world. The fourth paper "Integrating the Expanded Task-technology Fit Theory and the Technology Acceptance Model: A Multi-wave Empirical Analysis" by Matt C. Howard and Joseph F. Hair Jr. shows that an expanded task-technology fit theory that breaks down fit into too few versus too many features explains meaningful variance in the technology acceptance model, suggesting their integration to better understand technology use. The fifth and last paper "From Artificial Intelligence (AI) to Intelligence Augmentation (IA): Design Principles, Potential Risks, and Emerging Issues" by Lina Zhou, Cynthia Rudin, Matthew Gombolay, Jim Spohrer, Michelle Zhou, and Souren Paul provided a framework for designing intelligent augmentation systems that address six central questions: why, what, who/whom, how, when, and where.

You can download the papers in this issue from <https://aisel.aisnet.org/thci/vol15/iss1/> or the direct links provided below. You can also download the papers published in THCI by visiting the AIS E-Library <https://aisel.aisnet.org> or the journal website at <https://aisel.aisnet.org/thci/>.



In this issue (Volume 15, Issue 1):

Paper 1 (Overcoming Challenges to Enable the Potential of Metaverse Platforms: A Qualitative Approach to Understand Value Creation):  
Schöbel, S., & TINGELHOFF, F. (2023). Overcoming challenges to enable the potential of metaverse platforms: A qualitative approach to understand value creation. *AIS Transactions on Human-Computer Interaction*, 15(1), pp. 1-21. DOI: 10.17705/1thci.00181  
Available at: <https://aisel.aisnet.org/thci/vol15/iss1/1/>

Abstract:

Metaverse is the buzzword of modern society. Practitioners and researchers have discussed metaverse platforms extensively, but the potential and meaning of the metaverse remain controversial. In this paper, we investigate and identify challenges that enable the potential of metaverse platforms. If these challenges are overcome, there will be value creation for practitioners, organizations, and society. We used a qualitative approach whereby we interviewed 34 metaverse experts to identify the challenges, potential, and value associated with the metaverse. Our results demonstrate that technical and societal challenges obstruct the ability to handle user-related and organizational challenges. If these challenges can be overcome, we can use the opportunities that our participants identified to create functional, social, and emotional value. Our work theoretically contributes to current knowledge on metaverse platforms by elaborating on handling metaverse platform ecosystems and determining instrumental challenges in their realization. With our qualitative approach, we provide room and directions for future research to develop a better understanding of the role and meaning of value creation in the metaverse. Our findings are useful to practitioners by presenting challenges organizations must overcome to create metaverse platforms or participate in a metaverse ecosystem. Furthermore, we present opportunities for vendors of metaverse platforms and organizations by identifying relevant processes that can be transferred into the metaverse.

Paper 2 (Theory-driven Visual Design to Support Reflective Dietary Practice via mHealth: A Design Science Approach):

Leipold, N., Hauptmann, H., Böhm, M., Madenach, M., Lurz, M., Groh, G., Gedrich, K., Krcmar, H. (2023). Theory-driven visual design to support reflective dietary practice via mHealth: A design science approach. *AIS Transactions on Human-Computer Interaction*, 15(1), pp. 22-54. DOI: 10.17705/1thci.00182  
Available at: <https://aisel.aisnet.org/thci/vol15/iss1/2/>

Abstract:

Design for reflection in human-computer interaction (HCI) has evolved from focusing on an abstract and outcome-driven design subject towards exposing procedural or structural reflection characteristics. Although HCI research has recognized that an individual's reflection is a long-lasting, multi-layered process that can be supported by meaningful design, researchers have made few efforts to derive insights from a theoretical perspective about appropriate translation into end-user visual means. Therefore, we synthesize theoretical knowledge from reflective practice and learning and argue for a differentiation between time contexts of reflection that design needs to address differently. In an interdisciplinary design-science-research project in the mHealth nutrition promotion context, we developed theory-driven guidelines for "reflection-in-action" and "reflection-on-action". Our final design guidelines emerged from prior demonstrations and a final utility evaluation with mockup artifacts in a laboratory experiment with 64 users. Our iterative design and the resulting design guidelines offer assistance for addressing reflection design by answering reflective practice's respective contextual requirements. Based on our user study, we show that reflection in terms of "reflection-in-action" benefits from offering actionable choice criteria in an instant timeframe, while "reflection-on-action" profits from the structured classification of behavior-related criteria from a longer, still memorable timeframe.

Paper 3 (Gender Effects in Directed versus Incidental Learning in a 3D Virtual World Simulation):

Kahai, S., Jestice, R., & Huang, R. (2023). Gender effects in directed versus incidental learning in a 3D virtual world simulation. *AIS Transactions on Human-Computer Interaction*, 15(1), pp. 55-82. DOI: 10.17705/1thci.00183  
Available at: <https://aisel.aisnet.org/thci/vol15/iss1/3/>

Abstract:

Virtual worlds have the potential to enable and enhance online learning outcomes. Because learning in three-dimensional (3D) designed learning spaces depends on learners' spatial processing abilities, we need to understand how these abilities may affect online learning outcomes. Building on the hunter-gatherer theory of gender difference in spatial abilities, we examined how gender interacts with learning type (directed vs. incidental) to affect learning in virtual world (VR) simulations of objects. Specifically, we theorized that men's and women's spatial abilities would lead to differential outcomes based on the type of learning that the instructor designed. Using a between-subjects 2 x 2 factorial design (directed vs. incidental learning and male vs. female), we found that incidental learning benefitted women and that directed learning benefitted men. Our findings counter the traditional view that males outperform females in learning tasks that engage spatial abilities in a virtual world. We urge educators to consider such gender effects on learning when employing VR simulations of objects.

Paper 4 (Integrating the Expanded Task-technology Fit Theory and the Technology Acceptance Model: A Multi-wave Empirical Analysis):

Howard, M. C. & Hair, J. F. (2023). Integrating the expanded task-technology fit theory and the technology acceptance model: A multi-wave empirical analysis. *AIS Transactions on Human-Computer Interaction*, 15(1), pp. 83-110. DOI: 10.17705/1thci.00184  
Available at: <https://aisel.aisnet.org/thci/vol15/iss1/4/>

Abstract:

Task-technology fit theory proposes that the match between tasks and technologies, known as task-technology fit, has a positive relation with technology use and performance. Researchers have recently extended task-technology fit theory by conceptualizing task-technology



misfit, which describes instances in which technology provides too few (too little) or too many (too much) features to perform a task. We link this newly expanded theory, which we label expanded task-technology fit (E-TTF) theory, with the technology acceptance model (TAM). We conducted a study and found that task-technology fit and too little significantly related to the variables in the TAM and that each ultimately had an indirect effect on use. In contrast, too much did not significantly relate to any variable in the TAM. These results support that E-TTF theory explains meaningful variance in the TAM, which suggests that integrating these theories is important for understanding technology use. Likewise, these results emphasize the importance of the multidimensional conceptualization that the E-TTF theory proposes. Too little (too few features) predicted outcomes beyond task-technology fit and meaningfully improved our model's predictive abilities. In contrast, too much's (too many features) relationships lacked significance, which emphasizes the need to distinguish types of task-technology misfit. Therefore, our study provides benefits for research on E-TTF theory, the TAM, and their integration.

Paper 5 (From Artificial Intelligence (AI) to Intelligence Augmentation (IA): Design Principles, Potential Risks, and Emerging Issues): Zhou, L., Rudin, C., Gombolay, M., Spohrer, J., Zhou, M., & Paul, S. (2023). From artificial intelligence (AI) to intelligence augmentation (IA): Design principles, potential risks, and emerging issues. *AIS Transactions on Human-Computer Interaction*, 15(1), pp. 111-135. DOI: 10.17705/1thci.00185

Available at: <https://aisel.aisnet.org/thci/vol15/iss1/5/>

#### Abstract:

We typically think of artificial intelligence (AI) as focusing on empowering machines with human capabilities so that they can function on their own, but, in truth, much of AI focuses on intelligence augmentation (IA), which is to augment human capabilities. We propose a framework for designing intelligent augmentation (IA) systems and it addresses six central questions about IA: why, what, who/whom, how, when, and where. To address the how aspect, we introduce four guiding principles: simplification, interpretability, human-centeredness, and ethics. The what aspect includes an IA architecture that goes beyond the direct interactions between humans and machines by introducing their indirect relationships through data and domain. The architecture also points to the directions for operationalizing the IA design simplification principle. We further identify some potential risks and emerging issues in IA design and development to suggest new questions for future IA research and to foster its positive impact on humanity.

## Call for Papers: AIS Transactions on Human-Computer Interaction

THCI is one of the journals in the AIS (Association for Information Systems) e-library at <https://aisel.aisnet.org/thci/>. THCI is a high-quality peer-reviewed international scholarly journal on Human-Computer Interaction. As an AIS journal, THCI is oriented to the Information Systems community, emphasizing HCI/UX applications in business, managerial, organizational, and cultural contexts. However, it is open to all related communities that share intellectual interests in HCI phenomena and issues. The editorial objective is to enhance and communicate knowledge about the interplay among humans, information, technologies, and tasks in order to guide the development and use of human-centered Information and Communication Technologies (ICT) and services for individuals, groups, organizations, and communities.

To increase awareness and readership, THCI is still freely available to the public, which is beneficial to the authors and the community. You can find information related to all aspects of THCI at its website <https://aisel.aisnet.org/thci/>, including how to submit manuscripts for publication consideration. We would like to thank the AIS Council <https://aisnet.org> for its continued support of the journal. And, as always, we are happy to announce that we have published the journal on time for every issue, and are building a strong case for a solid impact factor when released by SSCI and Scopus in the near future. The quality of THCI is affirmed by its inclusion as an "A" journal in the Australian Business Deans Council (ABDC) journal quality list.

Topics of interest to THCI include but are not limited to the following:

- Behavioral, cognitive, motivational, and affective aspects of human and technology interaction
- User task analysis and modeling; fit between representations and task types
- Digital documents/genres; human information seeking and web navigation behaviors; human information interaction; information visualization
- Social media; social computing; virtual communities
- Behavioral information security and information assurance; privacy and trust in human technology interaction
- User interface design and evaluation for various applications in business, managerial, organizational, educational, social, cultural, non-work, and other domains
- Integrated and/or innovative approaches, guidelines, and standards or metrics for human-centered analysis, design, construction, evaluation, and use of interactive devices and information systems
- Information systems usability engineering; universal usability
- Impact of interfaces/information technology on people's attitude, behavior, performance, perception, and productivity
- Implications and consequences of technological change on individuals, groups, society, and socio-technical units
- Software learning and training issues such as perceptual, cognitive, and motivational aspects of learning
- Gender and information technology
- New applications, modalities, and multimedia interaction for the elderly, the young, and special needs populations
- Issues in HCI education

The language for the journal is English. The audience includes international scholars and practitioners who conduct research on issues related to the objectives of the journal. The publication frequency is quarterly: four issues per year that are published in March, June, September, and December. The AIS Special Interest Group on Human-Computer Interaction (SIGHCI, <https://sighci.org>) is the official sponsor of THCI.

Please visit the links above or the links from our AIS THCI home page <https://aisel.aisnet.org/thci/> for details on special issue calls.

## Call for Items: AIS SIGHCI Newsletter Volume 22, Issue 1

You are invited to offer items to the coming issue of AIS SIGHCI newsletter (Volume 22, Issue 1), to be published in September 2023. All items will be editorial reviewed. If you are interested, please send your pieces to the newsletter editor Prateek Jain (pjain@wpi.edu) by August 25, 2023. Possible topics include, but are not limited to, the following:

1. Short essay/opinion/research study (800 – 1700 words)
2. HCI book review (800 – 1700 words). Please feel free to contact the editor beforehand if you intend to review a book or if you wish your own book to be reviewed.
3. Teaching HCI (up to 1700 words): teaching ideas or cases, sample syllabus, etc.
4. Industry voice (800 – 1700 words). We welcome HCI related essays from industry professionals.
5. Brief introduction of HCI research tools (up to 300 words).
6. Brief introduction of interesting HCI journals and/or special issues, including citation information, brief description, table of content (for special issues), etc.
7. CFP for HCI related journals or conferences.
8. News about SIGHCI members (up to 300 words for each item): honors and awards, professional activities, new appointments, interesting projects, new books or publications, etc.
9. Any other announcements (up to 300 words for each item).

To view previous newsletter issues, please visit <http://sighci.org/index.php?page=newsletters>

## Save the Dates

SIGHCI-Sponsored Activities & Events		
ECIS 2023	Kristiansand, Norway	June 11-16, 2023
PACIS 2023	Nanchang, China	July 8-12, 2023
HCIBGO 2023	Copenhagen, Denmark	July 23-28, 2023
AMCIS 2023	Panama City, Panama	August 10-12, 2023
<p><b>SIGHCI website: <a href="http://sighci.org/">http://sighci.org/</a></b></p>		



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