HCI International 2023
23-28 July 2023,
AC Bella Sky Hotel and Bella Center, Copenhagen, Denmark

Call for Participation

Design, Applications, and User Experience of Intelligent Systems in the Workplace

Monday, 24 July 2023 - 13:30-17:30 CET

Constantinos K. Coursaris
HEC Montréal, Canada
constantinos.coursaris@hec.ca

Pierre-Majorique Léger
HEC Montréal, Canada
pml@hec.ca

Joerg Beringer
Berisoft, United States
joerg.beringer@berisoft.com

Burak OZ
HEC Montréal, Canada
burak.oz@hec.ca

Aim of the workshop

Intelligent agents are the answer to many inefficiencies and hiring-related difficulties in today's business world. However, not every intelligent agent is designed and implemented similarly. Different task-related and environmental characteristics lead to different levels of intelligent agent autonomy in planning and the execution of complex decision-making scenarios. There are different ways of designing the most efficient intelligent agent at each autonomy and task complexity level.

In this workshop, we aim to set the stage and provide a forum for participants to discuss the factors affecting user experience design implementations to optimize human-machine team interaction and workplace performance.

Expected workshop outcome

The workshop has three aims:

1. To facilitate knowledge sharing of the discrete challenges that authors will be presenting in relation to the design, application, and user experience of intelligent systems in the workplace.
2. Participating authors will have the option of publishing their contribution in conference proceedings published by Springer as part of the CCIS series.
3. A collective discussion and co-creation of a position paper in relation to the presented challenges will commence during the workshop and will be completed following the conclusion of the workshop; the manuscript to be produced will be submitted to the International Journal of Human-Computer Interaction (IJHCI) for publication consideration.

Workshop topics

A non-exhaustive list of potential discussion topics includes:

- Designing socially-embedded intelligent agents in workplaces
- Human-AI interactions and 'teaming' in organizational settings
- Potential problems of automation / autonomous solutions in the workplace
- User considerations, engagement models, and meta decisions in human-AI interactions
- Challenges and opportunities when deploying intelligent systems in real-life contexts of use, including governance
- Ethical and societal issues regarding the use of intelligent agents in complex decision-making scenarios
- Usability problems and user experience considerations for interactions with intelligent agents and systems in group and organizational settings
- Case studies regarding the application of intelligent systems in organizations.

Workshop agenda

The workshop will be hosted only in an in-person setting, and it will span four hours comprising two parts.

The first part will begin with a short keynote talk by the workshop organizers. Participating authors will then present their papers in five-minute presentations, each followed by a question-and-answer period.

The second part will be a roundtable session during which participants will be working on consolidating the various challenges presented during the workshop into coherent problem areas. Following the conclusion of the workshop, participants will be invited to continue the co-creation of the manuscript intended for submission to the above-mentioned journal

(IJHCI), in which they elaborate on the identified problem areas and propose a research agenda.

Guidelines to prospective authors

Submission for the Workshop

Prospective presenters are invited to submit either a complete manuscript or an extended 800-word abstract through the HCII Conference Management System (CMS). Submissions will undergo a double-blind review to ensure rigor and diversity.

Submission for the Conference Proceedings

The contributions to be presented in the context of Workshops **will not be automatically** included in the Conference proceedings.

However, after consultation with the Workshop Organizer, authors of accepted workshop proposals that are registered for the conference, are welcome to submit through the HCII Conference Management System (CMS), an extended version of their workshop contribution, to be considered for presentation at the Conference and inclusion in the "Late Breaking Work" conference proceedings in the CCIS as a short paper (typically 6 pages, but no less than 4 and no more than 8), following peer review.

The submission deadline for the camera-ready papers (long or short) for the "Late Breaking Work" Volumes of the Proceedings is the 23rd of June 2023.

Workshop deadlines

Submission of workshop proposals	8 May 2023
Notification about submission acceptance	22 May 2023
Finalization of Workshop organization and registration of participants	31 May 2023

Workshop organizers

Constantinos K. Coursaris, Ph.D. Constantinos is Associate Professor of Information Technology, Academic Director of M.Sc. User Experience, and Co-Director of Tech3Lab at HEC Montréal. Constantinos is currently Past Chair of the Association for Information Systems (AIS) SIGHCI, AIS AVP Research Resources, and IFIP TC13 Expert Member. His human-computer interaction research explores user motivations, expectations, and experiences with new media and the consequent design implications for information systems. Constantinos is the main contact person.	
Pierre-Majorique Léger, Ph.D. Pierre-Majorique is a Professor in the Department of Information Technologies at HEC Montreal. He is the Chairholder of the NSERC-Prompt Industrial Research Chair in User Experience, Co-director of the Tech3Lab and director of the ERPsim lab. Some of his expertise include ERP systems, business IT value, electronic commerce collaboration, technology innovation management and NeuroIS.	
Joerg Beringer, Ph.D. Joerg Beringer is an experienced Chief Design Officer in the technology industry. Previously, he worked at Blue Yonder, where he led the UX organization and experience strategy of all Blue Yonder solutions, including the Luminate Supply Chain Platform. Prior to that, he worked at SAP on UX frameworks and emerging solutions, and at Splunk on big data analytics and process mining. Joerg is passionate about driving innovation in enterprise software solutions and collaborating with the academic community in the areas of CSCW, end-user development, situational workspaces, and UX of intelligent systems.	
Burak Oz, M.Sc. Burak Oz is a PhD candidate in the Department of Information Technologies at HEC Montréal. He holds a master's degree in Industrial Engineering from the Middle East Technical University, Turkey. His research interests include IT and AI in supply chain management, effective use of IT, feature-level IT use and acceptance, and technology-mediated experiential learning.	

Useful links and References

Here are several readings to get started with various viewpoints on human-AI collaborations in workplaces:

Amershi, S., Weld, D., Vorvoreanu, M., Fourney, A., Nushi, B., Collisson, P., Suh, J., Iqbal, S., Bennett, P. N., Inkpen, K., Teevan, J., Kikin-Gil, R., and Horvitz, E. 2019. "Guidelines for Human-AI Interaction," in *Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems*, Glasgow Scotland Uk: ACM, May 2, pp. 1–13. (https://doi.org/10.1145/3290605.3300233).

Committee on Human-System Integration Research Topics for the 711th Human Performance Wing of the Air Force Research Laboratory, Board on Human-Systems Integration, Division of Behavioral and Social Sciences and Education, and National Academies of Sciences, Engineering, and Medicine. 2021. *Human-AI Teaming: State of the Art and Research Needs*, Washington, D.C.: National Academies Press, p. 26355. (https://doi.org/10.17226/26355).

Endsley, M. R. 2022. "Supporting Human-AI Teams:Transparency, Explainability, and Situation Awareness," *Computers in Human Behavior*, p. 107574. (https://doi.org/10.1016/j.chb.2022.107574).

Jarrahi, M. H. 2018. "Artificial Intelligence and the Future of Work: Human-AI Symbiosis in Organizational Decision Making," *Business Horizons* (61:4), pp. 577–586. (https://doi.org/10.1016/j.bushor.2018.03.007).

Shneiderman, B. 2022. *Human-Centered AI*, Oxford University Press. (https://books.google.ca/books?id=YS9VEAAAQBAJ).

Wang, D., Churchill, E., Maes, P., Fan, X., Shneiderman, B., Shi, Y., and Wang, Q. 2020. "From Human-Human Collaboration to Human-AI Collaboration: Designing AI Systems That Can Work Together with People," in *Extended Abstracts of the 2020 CHI Conference on Human Factors in Computing Systems*, Honolulu HI USA: ACM, April 25, pp. 1–6. (https://doi.org/10/gm29tp).

Registration regulation

Attendance in the workshops will be available as 'in-person' only. Workshops are 'closed' events, i.e. only authors of accepted workshop proposals, registered for the specific workshop, will be able to attend.

A registration fee of $75 is applicable for workshop participants. Workshop participants who wish to attend the Conference will need to also register for the Conference.

The total number of participants per workshop cannot be less than 8 or exceed 25.