

Office of Alumni Affairs, IITA, Prayagraj, India

**Brief Biodata of the Speaker Dr. Himanshu Verma**

(IITA Alumnus, M. Tech. IT-HCI, 2008 Batch)

**Personal Information**

FIRST NAME / SURNAME Himanshu Verma  
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GOOGLE SCHOLAR <https://scholar.google.ch/citations?user=BLZOIKwAAAAJ&hl=en>



**Education**

09.2010 — 08.2015 **PhD in Computer Science**  
*École Polytechnique Fédérale de Lausanne, Switzerland*  
TITLE Latent Social Information in Group Interactions with a Shared Workspace  
DESCRIPTION The co-creation and sharing of *content artifacts* (post-its, schemas, etc.) amongst group members during meetings remains a crucial activity to support the ongoing collaboration. These artifacts are exchanged amongst the group members, and transformed through interactions over the course of the meeting. In my thesis, I examined the interactions of collaborators with content artifacts, and demonstrated that these interactions contain social information which is *latent* and has not been leveraged so far in collaboration research. I also present empirical evidence of the correlation between *latent social information* and the quality of collaboration.  
SUPERVISOR Prof. Pierre Dillenbourg  
DEFENSE DATE 28.08.2015  
07.2008 — 06.2010 Master of Technology in Information Technology  
*Indian Institute of Information Technology, Allahabad, India (IITA)*  
Specialization in Human-Computer Interaction (*summa cum laude*, CGPA: 9.9/10)

**Work Experience Assistant Professor in Human-AI Collaboration**

12.2020 — Present **Technische Universiteit Delft, Netherlands**  
Department of Sustainable Design Engineering, Faculty of Industrial Design and Engineering  
Scientific Collaborator (Post-doctoral Researcher)  
11.2018 — 11.2020 *École Polytechnique Fédérale de Lausanne, Switzerland (50%) and University of Applied Sciences of Western Switzerland, Switzerland (50%)*  
ADVISORS Dr. Jessica Dehler-Zufferey and Prof. Florian Evéquoz

11.2015 — 11.2018

Senior Researcher in Human-IST Research Institute

*University of Fribourg, Switzerland*

ADVISOR

Prof. Denis Lalanne

## Institutional Responsibilities

Actively engaged in projects at the intersection of Human-Computer Interaction, Ubiquitous Computing, and Social Cognition. I study the collaboration between people and AI-powered technologies in complex environments —our built and urban environments— and how these collaborations may change as technologies become increasingly ubiquitous and embodied in our environments. In addition, I examine the societal and cultural implications of Human-AI Collaboration.

## Master Thesis Supervision

08.2021

Embodying Proxemic Sensing Capabilities in Textiles

Thor Gerard, *TU Delft, Netherlands*.

STUDENT DETAILS

09.2019

VASCO: An Interactive Tool to Support Meaningful Exploration of Data for Novice Users

Miriam Luque, *University of Fribourg, Switzerland*.

STUDENT DETAILS

09.2018

Autonomous Vehicles and Us: Pedestrian — Autonomous Vehicle Interaction Design

Guillaume Pythoud, *University of Fribourg, Switzerland*.

STUDENT DETAILS

10.2017

cBoard: A Colocated Single Display Collaborative Smart Whiteboard

Moreno Colombo, *University of Fribourg, Switzerland*.

STUDENT DETAILS

07.2013

Towards a Collaborative Scripting of MOOCs Enhanced Learning in Higher Education

Afroditi Skevi, *National & Kapodistrian University of Athens, Greece*.

STUDENT DETAILS

Future User Interfaces (*Master Course, University of Fribourg*)

Taught *Statistics for Human-Computer Interaction* and *Computer Supported Collaborative Work* in two sessions and evaluated the student projects.

## Teaching Activities

Spring.2017 — Spring.2018

Digital Education and Learning Analytics (*Master Course, EPFL*)

ROLE

Administered and supported the online learning platform EdX with course content, quizzes, and assignments.

Fall.2014

Computer-Supported Collaborative Work (*Master Course, EPFL*)

ROLE

Assisted and coordinated the course curriculum, supervised students' projects, and supported students with the design and conducting of user studies, and data analyses.

Fall.2011 — Fall.2013

Compiler Design (*Bachelor Course, IITA*)

ROLE

Tutoring and assessment of weekly lab assignments and project supervision.

Distributed and Parallel Computing (*Bachelor Course, IITA*)

Project supervision.

Spring.2009

Digital Signal Processing (*Bachelor Course, IITA*)

ROLE

Tutoring and assessment of weekly lab assignments.

Fall.2008

ROLE

## Memberships & Reviewing

### SCIENTIFIC REVIEWING

Active reviewer for several journals and conferences in the domain of Human-Computer Interaction and Technology-Enhanced Learning.

### MEMBERSHIPS IN SCIENTIFIC SOCIETIES

*ACM ToCHI, ACM CHI, ACM MobileHCI, ACM CSCW, and ACM IDC CSCL, ICLS, and EC-TEL Springer Series on Adaptive Environments*

## Organizational Activities

### WORKSHOP

Professional Member of the ACM

AFIHM (Association Francophone d'Interaction Homme-Machine)

### DATES LOCAL CHAPTER

Co-organizer of Workshop titled "SensiBlend: Sensing Blended Experiences in Professional and Social Contexts"

In UbiComp'21 Conference, *Online*.

### DATES WORKSHOP

25.09.2021

Communication and Web Chair for ACM SIGCHI Swiss Chapter

<https://swisschi.acm.org>

### DATE CONFERENCE

31.05.2019 — 30.11.2020

Co-organizer of Workshop titled "From Artifacts to Architecture"

In ACM DIS'18 Conference, *Hong Kong, China*.

10.06.2018

### DATES

Proceedings Chair at "Interaction Homme-Machine (IHM'16)"

Francophone conference on Human-Computer Interaction, *Fribourg, Switzerland*.

25.10.2016 — 28.10.2016

## Prizes and Awards

### HONORABLE MENTIONS

Received three *Honorable Mentions (awarded to top 5% papers)* in ACM conference on Human Factors in Computing (CHI) in 2018 and 2017, and in ACM Conference on Designing Interactive Systems 2017 (DIS):

The Hide and Seek of Workspace: Towards Human-Centric Sustainable Architecture (CHI'18)

Studying Space Use: Bringing HCI Tools to Architectural Projects (CHI'17)

Is Driverless Car Another Weiserian Mistake? (DIS'17)

Challenging Joint Visual Attention as a Proxy for Collaborative Performance was awarded the *Best CSCL Design Paper* award in Computer Supported Collaborative Learning Conference (CSCL'21).

Paper Interfaces for Learning Geometry was awarded a *Best Paper* award in European Conference on Technology Enhanced Learning (EC-TEL'12).

Hindi/Urdu (*Native speaker*), English (*Bilingual proficiency*), French (*Intermediate*), German (*Beginner*)

Action & Design Research, Pervasive & Participatory Sensing, Experiment Design, Co-Design, Quantitative & Qualitative Research

Human-Computer Interaction, Computer Supported Collaborative Work/Learning, Human-Building Interaction, Interaction Design, Ubiquitous Computing, Machine Learning.

2021

BEST PAPER

Peer-Reviewed Journals

Verma, H., Pythoud, G., Eden, G., Lalanne, D., and Evéquo, F. “*Pedestrians and Visual Signs of Intent: Towards Expressive Autonomous Passenger Shuttles*”. In Proceedings of the ACM on Interactive, Mobile, Wearable, and Ubiquitous Technologies (IMWUT), 3(3), pp. 107:1—107:31. [Link](#).

2021

Lee, H., Je, S., Kim, R., Verma, H., Alavi, H., and Bianchi, A. “*Partitioning Open-Plan Workspaces via Augmented Reality*”. Personal and Ubiquitous Computing, 23(5), pp. 1—16. [Link](#).

Personal Skills

LANGUAGES

2019

RESEARCH METHODS

Sharma, K., Caballero, D., Verma, H., Jermann, P., and Dillenbourg, P. “*Shaping learners’ attention in Massive Open Online Courses*”. Revue internationale des technologies en pédagogie universitaire, 12(1-2), pp. 52—61. [Link](#).

RESEARCH THEMES

2018

Li, N., Verma, H., Skevi, A., Zufferey, G., Blom, J., and Dillenbourg, P. “*Watching MOOCs Together: Investigating Co-Located MOOC Study Groups*”. Distance Education, 35(2), pp. 217—233. [Link](#).

Peer-Reviewed Conference Proceedings

Publications

2018

2019

Verma, H., Constantinides, M., Zhong, S., El Ali, A., and Alavi, A. “*SensiBlend: Sensing Blended Experiences in Professional and Social Contexts*”. In Adjunct Proceedings of the 2021 ACM ACM International Joint Conference on Pervasive and Ubiquitous Computing and Proceedings of the 2021 ACM International Symposium on Wearable Computers, Virtual, USA. UbiComp-ISWC’21. *Upcoming*.

2018

2019

Verma, H., Mlynar, J., Pellaton, C., Theler, M., Widmer, A., and Evéquo, F. “*“WhatsApp in Politics?!”: Collaborative Tools Shifting Boundaries*”. In 18th IFIP TC 13 Conference on Human-Computer Interaction, Bari, Italy. Interact’21. *Upcoming*.

2018

2015

Sharma, K., Olsen, J., Verma, H., Caballero, D., and Jermann, P. “*Challenging Joint Visual Attention as a Proxy for Collaborative Performance*”. In 14th International Conference on Computer-Supported Collaborative Learning, Bochum, Germany. CSCL’21. *Upcoming*. [Best CSCL Design Paper](#)

2017

Verma, H., Evéquo, F., Pythoud, G., Eden, G., and Lalanne, D. “*Engaging Pedestrians in Designing Interactions with Autonomous Vehicles*”. In CHI’19 Extended Abstracts on Human Factors in Computing Systems, Glasgow, UK. CHI’19 EA. pp. 126:1—126:6. [Link](#).

2017

2021

Mlynar, J., Alavi, H., Verma, H., and Cantoni, L. “*Towards a Sociological Conception of Artificial Intelligence*”. In Proceedings of the International Conference on Artificial General Conference, Prague, Czech Republic. AGI’18. pp. 130—139. [Link](#).

Alavi, H., Churchill, E., Kirk, D., Bier, H., Verma, H., Lalanne, D., and Schnädelbach, H. “*From Artifacts to Architecture*”. In Proceedings of the 2018 ACM Conference

- Companion Publication on Designing Interactive Systems, Hong Kong, China. DIS'18 Companion. pp. 387—390. [Link](#).
- Verma, H., Alavi, H., and Lalanne, D. “*Rethinking Wearables in the Realm of Architecture*”. In *Global Thoughts, Local Designs — Lecture Notes in Computer Science*, Vol. 10774, Mumbai, India. pp. 16—23. [Link](#).
- Alavi, H., Verma, H., Mlynar, J., and Lalanne, D. “*The Hide and Seek of Workspace: Towards Human-Centric Sustainable Architecture*”. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, Montreal, Canada. CHI'18. pp. 75:1—75:12. [Link](#).
- 2017 *Honorable Mention Award (top 5% contributions)*
- Alavi, H., Verma, H., Papinutto, M., and Lalanne, D. “*Comfort: A Coordinate of User Experience in Interactive Built Environments*”. In 16<sup>th</sup> IFIP TC 13 Conference on Human-Computer Interaction, Mumbai, India. Interact'17. pp. 247—257. [Link](#).
- 2017 Prieto, L., Alavi, H., and Verma, H. “*Strong Technology-Enhanced Learning Concepts*”. In 12<sup>th</sup> European Conference on Technology Enhanced Learning, Tallinn, Estonia. EC-TEL'17. pp. 454—459. [Link](#).
- 2017 Brambilla, A., Alavi, H., Verma, H., Lalanne, D., Jusselme, T., and Andersen, M. “*Our inherent desire for control*”: A Case Study of Automation's Impact on Perception of Comfort”. In *International Conference on Future Buildings & Districts — Energy Efficiency from Nano to Urban Scale*, Lausanne, Switzerland. CISBAT'17. pp. 925—930. [Link](#).
- 2015 Alavi, H., Bahrami, F., Verma, H., and Lalanne, D. “*Is Driverless Car Another Weiserian Mistake?*”. In *Proceedings of the 2017 ACM Conference Companion Publication on Designing Interactive Systems*, Edinburgh, UK. DIS'17 Companion. pp. 249—253. [Link](#).  
*Honorable Mention Award (top 5% contributions)*
- Verma, H., Alavi, H., and Lalanne, D. “*Studying Space Use: Bringing HCI Tools to Architectural Projects*”. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, Denver, USA. CHI'17. pp. 3856—3866. [Link](#).  
*Honorable Mention Award (top 5% contributions)*
- 2014 Sharma, K., Caballero, D., Verma, H., Jermann, P., and Dillenbourg, P. “*Looking AT versus Looking THROUGH: A Dual Eye-Tracking Study in MOOC Context*”. In *Proceedings of the Computer Supported Collaborative Learning Conference*, Gothenburg, Sweden. CSCL'15. pp. 260—267. [Link](#).
- 2013 Li, N., Verma, H., Skevi, A., Zufferey, G., and Dillenbourg, P. “*MOOC Learning in Spontaneous Study Groups: Does Synchronously Watching Videos Make a Difference?*”. In *Proceedings of the European MOOC Stakeholder Summit*, Lausanne, Switzerland. EMOOCs'14. pp. 88—94. [Link](#).
- 2012 Verma, H., Roman, F., Magrelli, S., Jermann, P., and Dillenbourg, P. “*Complementarity of Input Devices to Achieve Knowledge Sharing in Meetings*”. In *Proceedings of the 2013 Conference on Computer Supported Cooperative Work*, San Antonio, USA. CSCW'13. pp. 701—714. [Link](#).
- 2012 Bonnard, Q., Verma, H., Kaplan, F., and Dillenbourg, P. “*Paper Interfaces for Learning Geometry*”. In *Proceedings of the 7<sup>th</sup> European Conference on Technology Enhanced Learning*, Saarbrücken, Germany. EC-TEL'12. pp. 37—50. [Link](#).  
*Best Paper Award (top 1% contributions)*

Verma, H., Roman, F., Jermann, P., and Dillenbourg, P. “*Effects of Input Device Familiarity on Content Creation and Sharing in Meetings*”. In CHI’12 Extended Abstracts on Human Factors in Computing Systems, Austin, USA. CHI EA’12. pp. 2643—2648. [Link](#).

#### Contribution to Books

2019 Alavi, H., Verma, H., Mlynar, J., and Lalanne, D. “*On the Temporality of Adaptive Built Environments*”. In Schnädelbach, H., and Kirk, D. (eds) — *People, Personal Data and the Built Environments* — Springer Series on Adaptive Environments. [Link](#).

#### INDUSTRY

##### General Contribution to Science (Position Papers)

Verma, H., Alavi, H., and Lalanne, D. “*From Substitution to Augmentation*”. In From Artifacts to Architecture (A2A) Workshop, Hong Kong, China. DIS’18. [Link](#).

2018 Verma, H., Alavi, H., and Lalanne, D. “*Architecture as Extension of Our Bodies*”. In Beyond Computers: Wearables, Humans, and Things (WHAT) Workshop, Mumbai, India. Interact’17. [Link](#).

2017 Blom, J., Verma, H., Li, N., Skevi, A., and Dillenbourg, P. “*MOOCs are More Social than You Believe*”. In eLearning Papers (33). [Link](#).

##### Outreach Activities

2013 Verma, H. “*HCI In-the-Wild: Bringing HCI Tools to Architecture and Urbanism*”

Invited Speaker at the Indraprastha Institute of Information Technology (IIIT) Delhi, India.

Verma, H. “*Socially-Aware Learning Spaces*”.

Invited speaker at the EPFL Applied Machine Learning Days, 2019.

2019 Verma, H. “*Scientific Storytelling — My Experiences with Thesis Writing*”.

2019

2016 Scientific and Collaborative Writing Workshop organized by EPFL Library, Lausanne, Switzerland.

#### International Collaborations

I have collaborated and co-authored with international researchers belonging to over 15 international research institutes and universities. In addition, my engagement in several inter-disciplinary projects has provided me with the opportunity to work with researchers from different disciplines such as Computer Science, Architecture, Urbanism, Design, Sociology, and Machine Learning. Following is a list of organizations which are part of my collaborative and research network (in the past and present).

ACADEMIA Charles University (*Czech Republic*), EPFL (*Switzerland*), Groningen University (*Netherlands*), KAIST (*South Korea*), Lancaster University (*UK*), Manchester Metropolitan University (*UK*), NTNU (*Norway*), Northumbria University (*UK*), Nottingham University (*UK*), Stanford University (*USA*), Tallinn University (*Estonia*), TU Delft (*Netherlands*), University College London (*UK*), University of Lugano (*Switzerland*), University of Sydney (*Australia*).

atelier oï (*Switzerland*), Google (*USA*), Swiss Post (*Switzerland*).