Jeroen Ooge
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As a driven teacher and researcher specialised in human-centred AI, I strongly believe in multidisciplinary science. My research focuses on how AI systems can be made transparent and controllable to improve decision-making, particularly in education. I use both quantitative and qualitative research methods, and visualisation techniques. Given my passion for education, I also study how interventions such as personalised gamification and adaptive recommendations can motivate and support learners.

Educational Background

2019–2023 **PhD in Engineering Science** (summa cum laude), KU Leuven. *Explaining Artificial Intelligence with Tailored Interactive Visualisations*, supervisor Prof. dr. Katrien Verbert.

2017–2019 **Master of Science in Applied Informatics** (multimedia, magna cum laude), KU Leuven. Thesis: *Personalising motivational strategies and gamification techniques with recommender systems*.

🏆 Shortlist (top 5) for Klasseprijs, an award in Flanders for the best MSc thesis on education.

2015–2017 **Master of Science in Mathematics** (fundamental mathematics, magna cum laude), Vrije Universiteit Brussel. Thesis: *Expander Graphs and Key Predistribution Schemes*.

Working Experience

2023–now **Assistant professor** at Utrecht University, Information and Computing Sciences (0.6 FTE teaching, 0.4 FTE research). I recruited and started supervising PhD researcher Marie-Sophie Simon in 2025.

2019–2023 **PhD researcher** at KU Leuven, Computer Science.

- I designed and implemented explainable AI and visual analytics interfaces in education, healthcare, and agrifood. This involved developing prediction and recommendation models.
- I collaborated with industrial and academic partners in multiple (international) projects.
- I presented my research at international research conferences and meetings.

2019–2023 I created learning materials as an **educational author** for publisher *die Keure*. I wrote transcripts and designed visuals for middle-school mathematics videos, and reviewed mathematics textbooks.

Teaching Experience at Utrecht University

2024–now **Lecturer** for *Usability Engineering & User Experience* (year 2 BSc, 3 iterations, 1 as coordinator): I redesigned materials and assignments; I introduced "research design exercises" in practical sessions.

Lecturer for *Information Exchange* (year 1 BSc, 2 iterations): I developed 1/3 part on data visualisation and redesigned 1/3 part on web development, including assignments and practical sessions.

🏆 Teacher Talent of the Year 2026: a university-wide award for best teacher with less than 5 years of academic teaching experience.

Guest lectures for MSc courses at Utrecht University (*Colloquium HCI* and *Adaptive Interactive Systems*) and other universities (Duke Kunshan University, and Saarland University).

Supervisor of 7 BSc theses in Information Science and **9 MSc theses** in Human Computer Interaction, Artificial Intelligence, Game and Media Technology, and Business Informatics.

Second assessor for 3 BSc and 10 MSc theses in Computing Science, Human Computer Interaction, Artificial Intelligence, and Game and Media Technology.

2024–2025 Member of a work group that proposed a learning trajectory ("leerlijn") for a new *Academic skills* course in the Information Science BSc programme.

Previous Teaching Experience

2019–2023 **Teaching assistant** for *Fundamentals for Informatics* (year 1 BSc), *Fundamentals Human-Computer Interaction* (MSc), and *Information Visualisation* (MSc) at KU Leuven: I conducted highly interactive practical sessions and provided support to students after class.

🏆 Best assistent in informatics in 2022–2023, granted by student union Wina (KU Leuven).

🏆 Best assistent in informatics in 2021–2022, granted by student union Wina (KU Leuven).

2020–2023 **Supervisor of 8 MSc theses** and external assessor of 6 MSc theses in Applied Informatics and Computer Science at KU Leuven.

2014–2019 **Private tutor** for mathematics, physics, chemistry, and informatics (primary school, secondary school, and BSc). Freelance and for companies: Solutio vzw (2017) and Slaagsleutels (2018–2019).

2015–2017 **Tutor** for BSc maths and physics students at Vrije Universiteit Brussel.

Outreach

2024–2025 I enjoy **educational outreach** to secondary schools. For example, I was a speaker for Docentennetwerk U-Talent to share my adaptive learning research with teachers, and I contributed to the department's Open Days by giving trial lectures.

2024–2025 I was a **speaker** at the WW-congres for secondary school teachers and an AIEdu webinar.

2022-2023 I presented **demos and posters** at multiple events, including info days at KU Leuven, the Learning Bytes Festival, and a Beta Faculty day and Learning Analytics event at Utrecht University.

Other Academic Services

2022–now **Reviewer** for journals (e.g., Transactions in Intelligent Systems, Transactions on Recommender Systems, AI Reviews, User Modeling and User-Adapted Interaction) and main tracks or workshops at conferences (e.g., IUI, LAK, ECTEL, RecSys, CHI, World Conference on XAI, AIED).

🏆 4 special recognitions for outstanding reviews at IUI2024 and CHI2024.

2022–2023 Academic staff representative in the Department of Computer Science at KU Leuven.

Ombuds person for MSc Digital Humanities at KU Leuven.

Other Honours

2023 🏆 FWO Grant for a 3-month research stay abroad at Carnegie Mellon University (visiting Prof. dr. Vincent Aleven).

2023 🏆 Gary Marsden Travel Award, used for attending the IUI'23 conference and a 2-week research stay at Hong Kong Baptist University (visiting Prof. dr. Li Chen and dr. Yucheng Jin).

Personal Development

2024–2025 I completed multiple trainings related to teaching and research: the University Teaching Qualification, the Peer Observation Programme, Supervising PhD research, Inclusion and Social Safety, Management Support for Future Leaders. I also obtained the Teaching in English Advanced certificate.

I attended several workshops during the Teaching and Learning Inspiration Days at Utrecht University.

2019–2023 I completed the *Guiding a Master's Thesis* module in the SWEETT training at KU Leuven and completed many trainings about advanced statistical and qualitative methods, academic writing, intercultural communication, English pronunciation and intonation, and science communication.

Selected Research Publications and Projects

2025–now **UpGrade project**. Personal experience and conversations with colleagues taught me that assessing theses is challenging. I started a research project with students to investigate how a learning analytics dashboard can support transparent and more objective thesis assessment.

BlendEd project. I developed a digital blended learning planner, based on the Blended Learning game by CAT at Utrecht University. I applied it for planning my courses, shared it with colleagues, and started a research project with students to evaluate its effectiveness.

2022–now I have contributed to 26 publications in total. My main research focuses on how educational AI systems can be made more transparent and controllable to support students' learning and foster motivation. Below are some recent publications:.

- **J. Ooge***, A. Faik*, and K. Verbert. 2026. Detect, Explain, Act: How Teachers Trust and Use an Explainable Real-Time Monitoring Dashboard to Detect Student Outliers in Class. In Proceedings of the 15th International Learning Analytics and Knowledge Conference, 392–404. DOI
- **J. Ooge**, A. Vanneste, M. Szymanski, and K. Verbert. 2025. Designing Visual Explanations and Learner Controls to Engage Adolescents in AI-Supported Exercise Selection. In Proceedings of the 15th International Learning Analytics and Knowledge Conference, 1–12. DOI
- F. Bellas, **J. Ooge**, et al. 2025. Explainable AI in education: fostering human oversight and shared responsibility. European Digital Education Hub. DOI
- **J. Ooge***, J. De Braekeleer*, and K. Verbert. 2024. Nudging Adolescents Towards Recommended Maths Exercises with Gameful Rewards. In Artificial Intelligence in Education, 328–335. DOI
- **J. Ooge***, S. Kato*, and K. Verbert. 2022. Explaining Recommendations in E-Learning: Effects on Adolescents' Trust. In 27th International Conference on Intelligent User Interfaces, 93–105. DOI

Other Skills

Computer skills: HTML, CSS, Javascript, Drupal, Java, PHP, Matlab, Haskell, Prolog, Python, R, Meteor, React, Svelte, Docker, Git, D3, LaTeX, all Microsoft Office software.

Languages: Dutch (native), English and French (fluent), Spanish and German (basic).