

Univ.-Prof. Dr. Dominik Kowald

Curriculum Vitae

Scholar: <https://scholar.google.at/citations?user=qQ-L8rUAAAAJ>

ORCID: <https://orcid.org/0000-0003-3230-6234>

Website: <https://dominikowald.info>

Profile

Bio I am **Professor for AI-based Information Retrieval in Digital Humanities (25%)** at the [University of Graz](#) as well as **head of the research area FAIR-AI** at [Know Center Graz](#), one of Europe's leading research centers for trustworthy AI. I hold a **venia docendi** in Applied Computer Science at the [Institute of Human-Centred Computing of Graz University of Technology](#), where I regularly teach courses and supervise students. I completed my **Ph.D. (with distinction)** in October 2017 on psychology-informed recommender systems based on the cognitive architecture ACT-R. Additionally, in June 2024, I completed my habilitation ([post-doctoral thesis](#)) on the topic of transparency, privacy, and fairness aspects of recommender systems. I am a **key researcher** in the [Interfaces of Agent-Centric AI](#) FFG COMET module, and in other international research projects. I have published more than **120 papers** in interdisciplinary and computer science venues ([h-index: 30](#)), and my research was presented in [several news outlets](#).

Research Fields Recommender Systems; Algorithmic Bias & Fairness; Trustworthy & Reproducible AI; Sociotechnical Systems; Ethical, Legal & Social Aspects of AI; Digital Humanities

Key Achievements

Research

- **Awards:** Two-time winner of the [TU Graz Gender & Diversity Award](#) (2022 & 2025) for research on fairness and bias in recommender systems, and runner-up for [Styrian Research Award 2025](#) for post-doctoral thesis (habilitation).
- **Impact:** Q1 journal publications in venues such as [Nature Scientific Reports](#), [EPJ Data Science](#), [ACM TIST](#), and [International Journal of Human-Computer Studies](#).
- **Collaboration:** International network (e.g., University of Colorado Boulder, TU Delft), [Dagstuhl seminar](#) attendee, and member of (senior) program committees.

Teaching

- **Qualification:** Venia Docendi in Applied Computer Science, Advanced Teaching Certificate from [TU Graz Teaching Academy](#), and professorship at University of Graz.
- **Interdisciplinarity:** Experience teaching computer science to diverse student groups ([Computational Social Systems](#), [Digital Humanities](#)), including student supervisions.
- **Innovation:** Development of research-oriented course outlines for [Databases](#) (~100 students) and [Data Management](#) (~500 students), with favorable student evaluations.

Management

- **Leadership:** Head of the FAIR-AI research area at Know Center Graz since 2021, and currently attending the [TU Graz Gender & Diversity Training Programme](#).
- **Funding:** Successful acquisition of research grants, including the [FFG COMET Research Center grant](#) worth 3.4M€ in cash and in-kind contributions for FAIR-AI, as well as, most recently, 1.1M€ Horizon Europe funding for FAIR-AI.
- **Event Organization:** Co-organizer of scientific events, e.g., the “Fair AI” sessions at the [STS Conference Graz](#) or the [HyPER'25](#) workshop at ACM UMAP.

Department of Digital Humanities, University of Graz & FAIR-AI, Know Center Graz, Austria

☎ +43 664 6191718 • ✉ dkowald@know-center.at

1/10

Education

- 2017–2024 **Priv.-Doz. (Habilitation), Applied Computer Science, TU Graz, Institute of Human-Centred Computing (HCC)**, Graz, Austria.
Thesis: Transparency, Privacy, and Fairness in Recommender Systems
- 2012–2017 **Dr.techn. (Ph.D.), Computer Science, TU Graz, Institute of Interactive Systems and Data Science (ISDS)**, Graz, Austria, *with distinction*.
Thesis: Modeling Activation Processes in Human Memory to Improve Tag Recommendations
Supervisors: Prof. Elisabeth Lex (TU Graz), Prof. Stefanie Lindstaedt (TU Graz)
- 2009–2012 **Dipl.-Ing. (MSc.), Software Engineering and Management, TU Graz, Institute of Interactive Systems and Data Science (ISDS)**, Graz, Austria, *with distinction*.
Thesis: Combining Computer-Supported, Collaborative Learning with E-Assessment: Enhancing a Wiki System with Flexible Assessment Methods
Supervisor: Assoc. Prof. Christian Gütl (TU Graz)
- 2006–2009 **BSc., Software Engineering and Management, TU Graz, Institute of Interactive Systems and Data Science (ISDS)**, Graz, Austria.
Thesis: Peer Assessment in Computer Science and Modern Technologies to Build a Flexible E-Learning System around It
Supervisor: Assoc. Prof. Christian Gütl (TU Graz), co-author: Dipl.-Ing. Joachim Maderer
- 2001–2006 **Matura, Business Informatics, College of Industrial Engineering (BULME), Business Informatics**, Graz, Austria, *with distinction*.
Matura project: Implementation of a medical practice management system with online user administration

Professional Positions Held

- since 2025 **University Professor (25%), University of Graz, Digital Humanities**, Graz, Austria.
Professorship for AI-based Information Retrieval in Digital Humanities
Research focus: LLMs and RAG in humanities contexts, studying cultural and social aspects
Teaching focus: information modeling and computer science for digital humanities; project seminar and privatissimum for AI-driven digital humanities methods
- since 2021 **Research Area Head, Know Center Research GmbH, FAIR-AI**, Graz, Austria.
Research focus: trustworthy and reproducible AI; privacy in recommender systems; long-term dynamics of algorithmic fairness using simulations; detecting and mitigating gender and popularity bias; ethical, legal, and social aspects of AI
Research visit: XAI group of Prof. Nava Tintarev, Maastricht University, The Netherlands (one week in November 2021); funded by the Provincial Government of Styria
- since 2021 **Lecturer, TU Graz, Institute of Human-Centred Computing (HCC) and University of Graz, Business Analytics and Data Science Centre**, Graz, Austria.
Venia docendi: scientific subject Applied Computer Science at TU Graz (since June 2024)
Teaching focus: relational databases; data management and data science; NoSQL databases; scientific writing with focus on recommender systems, trustworthy AI, and social aspects
- 2017–2021 **Deputy Research Area Head and Post-Doctoral Researcher, Know Center Research GmbH, Social Computing**, Graz, Austria.
Research focus: psychology-informed recommender systems; transparency in recommender systems and AI; social data science; multi-domain recommender systems; data platforms; microservice-based software architectures; machine learning and information retrieval
- 2012–2017 **Ph.D. Candidate and Researcher, Know Center Research GmbH, Social Computing and TU Graz, Institute of Interactive Systems and Data Science (ISDS)**, Graz, Austria.
Research focus: cognitive-inspired recommender systems; social tagging and microblogging systems; social data science; transparent user modeling
- 2010–2012 **Research Project Assistant, TU Graz, Institute of Interactive Systems and Data Science (ISDS)**, Graz, Austria.
Research focus: collaborative Web systems; e-assessment; learning analytics; Web technologies

University Courses Taught

- since 2026 **Privatissimum: Theory and Application of Digital Humanities**, [University of Graz](#), 4 ECTS, Master Digital Humanities, Doctoral Programme in Philosophy at Faculty of Arts and Humanities.
Role: [providing](#) an advanced research seminar for Master and Ph.D. students (~10 students)
- since 2026 **Project Seminar**, [University of Graz](#), 6 ECTS, Master Digital Humanities.
Role: [supervision](#) of practical student projects applying (trustworthy) AI-driven methods to historical datasets and digital editions (~2 to 4 students)
- since 2025 **Introduction to Computer Science**, [University of Graz](#), 5 ECTS, Master Digital Humanities.
Role: [lecturer](#) (~30 students), restructured course to include modern computer science aspects
- since 2024 **Data Management**, [TU Graz](#), 4 ECTS, Bachelor Software Engineering & Management, Computer Science, Information & Computer Engineering.
Role: [lecturer](#) (~500 students), restructured course focusing on practical aspects of data management and databases
- since 2024 **Foundations of Digitalization**, [University of Graz](#), 4 ECTS, Bachelor Business Administration, Economics, Sociology.
Role: [lecturer responsible for course content on relational databases](#) (~500 students)
- since 2024 **Privatissimum: Trustworthy AI and recommender systems**, [TU Graz](#), Doctoral school Computer Science.
Role: [mentoring Ph.D. students](#) (~1 to 2 students)
- 2024 **Case Studies Business Analytics**, [University of Graz](#), Guest lecture, AI reproducibility.
Role: [guest lecturer on reproducibility of AI-driven research](#) (~5 students)
- since 2023 **Databases**, [TU Graz](#), 3 ECTS, Bachelor Information & Computer Engineering, Master Computational Social Systems, Electrical & Audio Engineering.
Role: [lecturer](#) (~100 students), restructured course using a project-based teaching concept for students without a computer science background
- since 2023 **Introduction to Scientific Writing**, [TU Graz](#), 2 ECTS, Bachelor Information & Computer Engineering, Computer Science, Software Engineering & Management.
Role: [offering seminar topics on trustworthy AI and recommender systems](#) (~1 to 10 students)
- 2022 **Journalism & Public Relations**, [FH Joanneum](#), Guest lecture, Recommender systems.
Role: [guest lecturer on news recommender systems for journalists](#) (~50 students)
- 2016 **Science 2.0**, [TU Graz](#), 3 ECTS, Master Software Engineering & Management, Computer science.
Role: [responsible for the exercises](#) (~50 students), *main lecturer:* Prof. Elisabeth Lex
- 2014 **Recommender Systems**, [PUC Chile](#), Practical assignment, Content-based recommender systems.
Role: [guest course assistant](#) (~50 students), *main lecturer:* Prof. Denis Parra (PUC Chile)
- 2014 **Web Science & Web Technology**, [TU Graz](#), 3 ECTS, Bachelor Software Engineering & Management, Master Information & Computer Engineering.
Role: [responsible for the exercises](#) (~200 students), *main lecturer:* Prof. Elisabeth Lex
- 2011–2012 **Information Search & Retrieval**, [TU Graz](#), 5 ECTS, Master Software Engineering & Management, Computer Science, Information & Computer Engineering.
Role: [responsible for the exercises](#) (~100 students), *main lecturer:* Assoc.Prof. Christian Gütl
- 2009 **Data Structures & Algorithms**, [TU Graz](#), 1.5 ECTS, Bachelor Biomedical Engineering, Technical Mathematics, Software Engineering & Management, Computer Science, Information & Computer Engineering.
Role: [responsible for one exercise group](#) (~30 students), *main lecturer:* Prof. Robert Legenstein

- Student Supervision, Mentoring, & Examination Committee Member
- since 2026 **Ph.D. thesis**, [TU Graz](#), Andrea Forster: *Social Aspects of Agentic AI*.
 - since 2026 **Ph.D. thesis**, [TU Graz](#), Jenish Thapa: *Explainability in Multi-Agent AI Systems*, Co-supervision with Assoc. Prof. Viktoria Pammer-Schindler, [TU Graz](#).
 - since 2026 **Master's thesis**, [TU Graz](#), Thomas Zach: *Agency in Social Media Recommender Systems*, Co-supervision with Prof. Jana Lasser, [University of Graz](#).
 - 2026 **Examination committee member**, [University of Graz](#), Lucija Krusic: *NLP in Digital Humanities*, Ph.D. exam with Prof. Georg Vogeler, [University of Graz](#).
 - since 2025 **Master's thesis**, [TU Graz](#), Fanni Maria Tuominen: *Computational Antitrust*, Co-supervision with Dr. Jürgen Fleiß, [University of Graz](#).
 - since 2025 **Master's thesis and internship**, [Know Center Research GmbH](#) and [University of Vienna](#), Anja Rejc: Cognitive Biases and Trustworthy AI.
 - since 2025 **Master's thesis**, [TU Graz](#), Juergen Stumpf: *Regulation and Governance of AutoML Tools in Industry*, Co-supervision with Prof. Stefan Thalmann, [University of Graz](#).
 - 2025 **Master's thesis**, [TU Graz](#), Valentin Forster: *Detecting Price Anomalies Indicative of Antitrust Violations with AI*, Co-supervision with Dr. Juergen Fleiss, [University of Graz](#).
 - 2025 **Examination committee chairperson**, [TU Graz](#), Thomas Zenkl: *The Trouble with Algorithms: Conceptualizing Algorithmic Breaching Experiments*, Master's exam with Prof. Juliane Jarke, [University of Graz](#), and Assoc.Prof. Bernhard Wieser, [TU Graz](#).
 - since 2024 **Ph.D. thesis**, [TU Graz](#), Florian Atzenhofer-Baumgartner: *Recommender Systems in Digital Humanities*, Co-supervision with Prof. Georg Vogeler, [University of Graz](#).
 - since 2024 **Master's thesis**, [TU Graz](#), Andrea Forster: *Popularity Bias in Point-of-interest Recommender Systems*, Co-supervision with Prof. Stefan Thalmann, [University of Graz](#).
 - 2024 **Examination committee chairperson**, [TU Graz](#), Sara Skardelly: *Environmental (In)justice: Vienna as Best Practice?*, Master's exam with Prof. Juliane Jarke, [University of Graz](#), and Assoc.Prof. Bernhard Wieser, [TU Graz](#).
 - 2024 **Internship**, [Know Center Research GmbH](#), Adrian Marangoni: Fair AI in Mobility.
 - 2024 **Master's thesis and internship**, [TU Graz](#), Ioana Serban: Bias in Public Datasets.
 - 2024 **Bachelor thesis**, [TU Graz](#), Gregor Autischer: *Practical Aspects of AI Certification*.
 - 2023 **Bachelor thesis**, [TU Graz](#), Harald Semmelrock: *Reproducibility in AI*.
 - 2023 **Bachelor thesis**, [TU Graz](#), Michael Pöchlinger: *Bias in Data*.
 - 2023 **Internship**, [Know Center Research GmbH](#), Gökay Yildirim: Popularity Bias Detection.
 - 2022 **Bachelor thesis and Master's project**, [TU Graz](#), Gregor Mayr: *Calibration in Recommender Systems*, main supervisor: Prof. Elisabeth Lex, [TU Graz](#).
 - since 2020 **Ph.D. thesis**, [TU Graz](#), Peter Müllner: *Privacy in Recommender Systems*, main supervisor: Prof. Elisabeth Lex, [TU Graz](#).
 - since 2020 **Ph.D. thesis**, [TU Graz](#), Tomislav Duricic: *Sparsity and Interpretability of Graph-based Recommender Systems*, main supervisor: Prof. Elisabeth Lex, [TU Graz](#).
 - 2020 **Master's thesis**, [TU Graz](#), Mario Wagner: *Diversity-Aware Recommendation of Tweets*, main supervisor: Prof. Elisabeth Lex, [TU Graz](#).
 - 2019 **Master's thesis**, [TU Graz](#), Peter Müllner: *Studying Non-Mainstream Listening Behavior For Music Recommendations*, main supervisor: Prof. Elisabeth Lex, [TU Graz](#).
 - 2016 **Bachelor thesis**, [TU Graz](#), Andreas Punz: *Detection and Analysis of Communities on Twitter*, main supervisor: Prof. Elisabeth Lex, [TU Graz](#).

Scientific Event Organization & Conference Session Chairing

- 2026 **STS Session**, *Algorithmic fairness session at the 24th Conference on Critical Issues in Science, Technology and Society Studies*, Graz, Austria, Role: co-organizer.
- 2026 **CLARIAH Hackathon**, *Efficient Similarity: A Hackathon for Advanced Search in Cultural Heritage 3-days hackathon at Department of Digital Humanities at University of Graz*, Graz, Austria, Role: co-organizer.
- 2025 **UMAP Workshop**, *Hybrid AI for Human-Centric Personalization Workshop co-located with UMAP'25*, New York City, United States, Role: co-organizer.
- 2025 **ReproAI Workshop**, *Reproducibility and AI Workshop co-located with "Yes, we are open" Weizenbaum Institute Conference*, Berlin, Germany, Role: co-organizer.
- 2025 **STS Session**, *Fairness and Artificial Intelligence session at the 23rd Conference on Critical Issues in Science, Technology and Society Studies*, Graz, Austria, Role: co-organizer.
- 2024-2025 **CRBAM Workshop**, *Fair recommendations for cyclists workshop at 8th and 9th Cycling Research Board Annual Meeting (CRBAM)*, Zurich, Switzerland, Role: co-organizer.
- 2022 **DIH Süd Workshop**, *Digital Innovation Hub (DIH) Süd workshop on recommender systems and trustworthy AI*, Graz, Austria, Role: co-organizer.
- 2020 **BigData Summer Academy**, *Know Center Research GmbH summer academy on recommender systems*, Graz, Austria, Role: co-organizer.
- 2018 **ACM CIKM**, *Recommendation track of ACM CIKM'18*, Turin, Italy, Role: session chair.
- 2017 **RSBDA Workshop**, *Second workshop on recommender systems and big data analytics (RSBDA) at i-KNOW'17*, Graz, Austria, Role: co-organizer.
- 2016 **RSBDA Workshop**, *First workshop on recommender systems and big data analytics (RSBDA) at i-KNOW'16*, Graz, Austria, Role: co-organizer.
- 2015 **i-KNOW**, *Social Computing track at i-KNOW'15*, Graz, Austria, Role: session chair.
- 2013 **i-KNOW**, *Science 2.0 track at i-KNOW'13*, Graz, Austria, Role: session chair.

Awards & Honours

- 2025 **Mind-the-gap Award**, *TU Graz Gender & Diversity department*, Graz, Austria, 300€.
- 2025 **Runner-up Styrian Research Award**, *State of Styria*, Graz, Austria.
- 2024 **Outstanding Reviewer Award**, *ACM UMAP'24*, Cagliari, Italy.
- 2022 **Mind-the-gap Award**, *TU Graz Gender & Diversity department*, Graz, Austria, 450€.
- 2018 **Ph.D. Thesis Award**, *Chamber of Labor Styria*, Graz, Austria, 650€.
- 2015 **Best Demo Honourable Mention**, *Demo track at i-KNOW'15*, Graz, Austria.
- 2014 **Best Poster Award**, *Poster track at Hypertext'14*, Santiago, Chile.

Project Grants & Research Funding

- 2026–2029 **FFG COMET Module**, *Interfaces of Agent-Centric AI (IACAI)*, 3.7M€ for Know Center (350k€ for FAIR-AI), Role: key researcher for subproject on societal aspects.
- 2026–2029 **HorizonEurope**, *CompreHensive EVALuation methods for GPAI models (CHEVAL)*, 580k€ for FAIR-AI at Know Center, Role: co-work package lead.
- 2026–2029 **HorizonEurope**, *Navigational AI assistant for Virtual worlds Immersion (NAVI)*, 636k€ for Know Center (506k€ for FAIR-AI), Role: co-work package lead.

- 2025–2027 **HorizonEurope**, *Linked User-driven Multidisciplinary Exploration Network (LUMEN)*, 415k€ for Know Center (83k€ for FAIR-AI), *Role*: key researcher.
- 2025–2027 **Erasmus+**, *AI For a new Design Education Approach (AIDEA)*, 51k€ for FAIR-AI at Know Center, *Role*: key researcher.
- 2025 **FFG BASIS**, *Pro'K'ress*, 174k€ for Know Center (85k€ for FAIR-AI), *Role*: key researcher.
- 2025 **FFG FemTech**, *Internship Grant*, 8.5k€ for FAIR-AI at Know Center, *Role*: (co)-supervisor.
- 2024–2025 **OpenWebSearch Third-Party Call**, *Trustworthy Access to Knowledge from the Indexed Web (TILDE)*, 100k€ for Know Center (33k€ for FAIR-AI), *Role*: key researcher.
- 2024–2025 **FFG AI4Green**, *Strategic AI Roadmap for Mobility (SAIROM)*, 50k€ for Know Center (25k€ for FAIR-AI), *Role*: key researcher.
- 2024–2025 **Styrian AI Future Fund**, *FairRecSys*, 74k€ for TU Graz (37k€ for FAIR-AI), *Role*: co-project lead.
- 2023–2026 **FFG COMET Research Center**, *Know Center - Research Center for Trustworthy AI*, 20.4M€ for Know Center (3.4M€ for FAIR-AI), *Role*: research area head for FAIR-AI.
- 2022–2026 **FFG COMET Module**, *Data-Driven Immersive Analytics (DDIA)*, 3.7M€ for Know Center (350k€ for FAIR-AI), *Role*: key researcher for subproject on recommendations.
- 2022–2025 **FFG FemTech**, *Radreisen4All*, 150k€ for FAIR-AI at Know Center, *Role*: key researcher in the field of multistakeholder recommender systems.
- 2022–2023 **FFG FemTech**, *Internship Grant*, 8.5k€ for FAIR-AI at Know Center, *Role*: (co)-supervisor.
- 2020–2023 **FFG COMET Module**, *Data-Driven Artificial Intelligence (DDAI)*, 3.7M€ for Know Center (700k for FAIR-AI), *Role*: key researcher for subproject on XAI and private AI.
- 2020–2023 **Erasmus+**, *Cogsteps*, 130k€ for FAIR-AI at Know Center and TU Graz, *Role*: key researcher.
- 2020–2022 **H2020**, *Trusted Secure Data Sharing Space (TRUSTS)*, 730k€ for Know Center (138k€ for Social Computing), *Role*: task lead.
- 2020–2022 **H2020**, *TRIPLE*, 377k€ for Know Center (120k€ for Social Computing), *Role*: co-task lead.
- 2020–2022 **H2020**, *AI4EU*, 147k€ for Know Center (73.5k€ for Social Computing), *Role*: co-task lead.
- 2019–2022 **FFG COMET Research Center**, *Know Center - Research Center for Big Data Analytics*, 20.4M€ for Know Center (3.4M€ for Social Computing), *Role*: deputy research area head (research area head: Prof. Elisabeth Lex).
- 2019–2021 **FFG BASIS**, *Automated Marketing and Loyalty System for Retailers and Stores (Joloo)*, 120k€ for Social Computing at Know Center, *Role*: researcher for recommender systems.
- 2018–2020 **FFG BASIS**, *Studo App Sales Offensive*, 120k€ for Social Computing at Know Center, *Role*: researcher for recommender systems.
- 2018–2020 **Styrian Health Fund**, *Health-Literacy und Diversity (HeLi-D)*, 75k€ for Know Center (37.5k€ for Social Computing), *Role*: work package lead.
- 2018–2020 **OpenAIRE Tender Call**, *OpenAIRE Matchmaker*, 75k€ for Know Center, *Role*: researcher.
- 2015–2018 **FFG Lighthouse**, *Data Market Austria (DMA)*, 286k€ for Know Center (170k€ for Social Computing), *Role*: researcher for recommender systems.

Selected Media Reactions & Scientific Dissemination to the Public

- 2025 **TU Graz**, [Fairness in AI: Study Shows Central Role of Human Decision-Making](#), News Article on Fairness in AI-based Multistakeholder Recommender Systems, *Language*: English.
- 2025 **HTS Highlights**, [Trustworthy AI for the Medicine of the Future](#), News Article on AI in healthcare in the highlights report of the Humantechnology Styria hub, *Language*: English.
- 2024 **Trend**, [Der AI Act - Chance für Europa](#), News Article on legal aspects of trustworthy AI, *Language*: German.
- 2024 **MediaFutures**, [Transparency, privacy and fairness in recommender systems](#), News article on trustworthiness aspects of recommender systems, *Language*: English.
- 2023 **DerStandard**, [Wie Recruiting mit KI in Zukunft auch ohne Diskriminierung möglich ist](#), News article on fair AI in the labor market, *Language*: German.
- 2022 **APA Science**, [Digitale Stereotype](#), News article on fairness in AI, *Language*: German.
- 2022 **APA Science**, [Wie digitale Stereotype aus der Welt geschafft werden sollen](#), News article on popularity bias in recommender systems, *Language*: German.
- 2022 **TU Graz**, [Research and Teaching for Equal Opportunities](#), News article about the winners of the TU Graz Mind-the-gap gender and diversity award, *Language*: English.
- 2021 **BiomedCentral**, [Algorithm-Generated Music Recommendations: Low Accuracy for Fans of Beyond-Mainstream Music](#), News article on beyond-mainstream users in music recommender systems, *Language*: English.
- 2021 **BackstagePro**, [Studie zeigt: Metal- und Hip-Hop-Fans haben bei Empfehlungs-Algorithmen das Nachsehen](#), News article on niche music recommendations, *Language*: German.

Gender Mainstreaming & Leadership Qualifications

- 2025-2026 **Gender & Diversity Training**, [TU Graz Gender, Diversity & Equity unit](#), gender and diversity training for researchers.
- 2025 **Gender & Diversity Award**, [TU Graz Gender, Diversity and Equal Opportunity](#), Awarded for research on fair recommender systems in tourism.
- 2023 **Leadership**, [Wolfgang Eder HR development, Future team lead certificate](#), Know Center Research GmbH team lead programme on gender- and diversity-sensitive leadership.
- 2022-2025 **FFG Femtech**, [Key researcher for FFG Femtech project including 2 Femtech internships](#), gender- and diversity-sensitive recommender systems in Radreisen4All project.
- 2022 **Gender & Diversity Award**, [TU Graz Gender, Diversity and Equal Opportunity](#), Awarded for my research on fairness, diversity, and gender and popularity bias in recommender systems.
- 2023 **Gender & Diversity-sensitive Teaching**, [TU Graz Teaching Academy, Advanced teaching certificate](#), Didactics and communication skills for gender- and diversity-sensitive teaching and mentoring techniques.

Membership in Associations & Academic Self-Administration

- since 2026 **SmartRegulation**, [Smart Regulation field of excellence at University of Graz](#), *Role*: full member.
- since 2025 **GraML**, [Graz Center for Machine Learning at TU Graz](#), *Role*: center board member for core research area on trust.

- since 2024 **Austrian Standards**, *Committee for AI standardization in Austria*, Role: committee member representing Know Center together with Dr. Kerstin Waxnegger.
- since 2023 **Big Data Value Association Task Force**, *Ethical and Trustworthy Artificial and Machine Intelligence (ETAMI) task force of the Big Data Value Association (BDVA)*, Role: member.
- since 2023 **Know Center Research GmbH**, *Works Council of Know Center Research GmbH*, Role: substitute member.
- since 2021 **Frontiers in Big Data**, *Editorial board of Recommender Systems Section*, Role: review editor and research topic editor.
- since 2014 **ACM**, *Association for Computing Machinery (ACM)*, Role: member (since 2017: professional member).

Research Talks at International Conferences & Events

- 2026 **DigitalHumanities**, *Invited talk for digital humanities breakfast lecture series at University of Graz*, Graz, Austria.
- 2025 **SmartRegulation**, *Invited panelist on AI regulation at SmartRegulation field of excellence of University of Graz*, Graz, Austria.
- 2025 **RecSys**, *Contributing talks on fairness at RecSys*, Prague, Czech Republic.
- 2025 **EWAF**, *Contributing talk on AI certification at EWAF*, Eindhoven, The Netherlands.
- 2025 **HabilTalk**, *Invited talk on transparency, privacy, and fairness in recommender systems as part of the HabilTalk series of TU Graz*, Graz, Austria.
- 2024 **RecSys**, *Contributing talk on popularity bias simulation studies at RecSys*, Bari, Italy.
- 2024 **OEGGF**, *Contributing talk on fair AI in the labor market at the 10. Tagung der Oesterreichischen Gesellschaft für Geschlechterforschung (OEGGF)*, Graz, Austria.
- 2024 **AI-Know**, *Contributing talk on evaluation and certification of trustworthy AI at AI-Know*, Graz, Austria.
- 2024 **MediaFutures**, *Invited talk on trustworthy recommender systems and research/industry collaborations at MediaFutures SFI*, Bergen, Norway.
- 2024 **Wissenschaftsforum**, *Invited speaker and panelist on fair AI in the labor market at the Wissenschaftsforum*, Cologne, Germany.
- 2023 **ECIR**, *Contributing talk on recommendations-as-a-service at ECIR*, Dublin, Ireland.
- 2023 **BIAS**, *Contributing talk on recommendation calibration at BIAS@ECIR*, Dublin, Ireland.
- 2022 **EBDVA**, *Invited panelist and speaker on trustworthy AI and EU AI Act as part of the European Big Data Value Forum*, Prague, Czech Republic.
- 2022 **ECIR**, *Contributing talk on news recommendation at ECIR*, Stavanger, Norway.
- 2022 **BIAS**, *Contributing talk on fairness at BIAS@ECIR*, Stavanger, Norway.
- 2021 **DataWeek**, *Invited panelist and speaker on breaking silos in data innovation in Europe as part of BDVA Data Week*, online due to COVID-19.
- 2021 **Science4Future**, *Contributing talk on fairness at TU Graz*, Graz, Austria.
- 2020 **ECIR**, *Contributing talk on music recommendations at ECIR*, online due to COVID-19.
- 2019 **REVEAL**, *Contributing talk on recommender systems in data markets at REVEAL@RecSys*, Copenhagen, Denmark.
- 2019 **EUROCSS**, *Contributing talk on polarization at EUROCSS*, Zurich, Switzerland.
- 2018 **CIKM**, *Contributing talk on social recommendations at CIKM*, Turin, Italy.

- 2018 **WebConf**, *Contributing talk on tag recommendations at [WebConf](#)*, Lyon, France.
- 2018 **EUROCSS**, *Contributing talk on confirmation bias in hashtag recommendations [EU-ROCSS](#)*, Cologne, Germany.
- 2017 **UMAP**, *Contributing talk on recommendation frameworks at [UMAP](#)*, Bratislava, Slovakia.
- 2017 **WebConf**, *Contributing talk on hashtag recommendations at the [WebConf](#)*, Perth, Austria.
- 2017 **UMAP**, *Contributing talk on the TagRec tag recommendation evaluation framework [UMAP](#)*, Bratislava, Slovakia.
- 2017 **EUROCSS**, *Contributing talk on imbalances in social tagging systems and recommendations [EUROCSS](#)*, London, England.
- 2016 **Hypertext**, *Contributing talk on cognitive models in tagging at [Hypertext](#)*, Halifax, Canada.
- 2015 **RecSys**, *Contributing talk on recommendation evaluation at [RecSys](#)*, Vienna, Austria.
- 2015 **WWW**, *Contributing talk on recommendations in social tagging systems at [WWW](#)*, Florence, Italy.
- 2015 **CSSWS**, *Contributing talk on activation processes in human memory for tag recommendations at [CSSWS](#)*, Cologne, Germany.
- 2015 **i-KNOW**, *Contributing talk on tourism recommender systems at [i-KNOW](#)*, Graz, Austria.
- 2014 **WWW**, *Contributing talk on cognitive modeling at [WWW](#)*, Seoul, Korea.
- 2013 **i-Semantics**, *Contributing talk on a Web framework for social semantic services at [i-Semantics](#)*, Graz, Austria.

Selected Research Community Services

- since 2025 **External Evaluator of Academic Positions**, [University of Bergen](#), [University of Gothenburg](#), provided external reviews of applications for senior academic positions.
- 2022-2023 **Journal Special Issue Editor**, [Frontiers in Big Data - Reviews in Recommender Systems](#), (co-) editor of 10 review articles in the field of recommender systems.
- since 2021 **Journal Review Editor**, [Frontiers in Big Data - Recommender Systems Section](#).
- since 2020 **Senior Program Committee (conferences)**, [ECAI](#) (full paper track), [RecSys](#) (reproducibility track), [ECIR](#) (reproducibility track), [ECTEL](#) (full paper track).
- since 2017 **Reviewing for Journals and Books**, [Transactions on Recommender Systems](#), [Journal of Human Computer Interaction](#), [TIST](#), [Frontiers in Psychology](#), [Applied Soft Computing](#), [EPJ Data Science](#), [HUMANIZE](#), [TWEB](#), [TCSS](#), [PlosOne](#), [JSS](#), [TKDE](#), [IR Journal](#), [SNAM](#), [AJSE](#), [TLT](#), [Computers & Education](#), [Systems & Software](#).
- since 2015 **Program Committee (workshops)**, [BIAS](#), [IronGraphs](#), [MURS](#), [PsyIAS](#), [HAAPIE](#), [MORS](#), [INTRS](#), [Perspectives](#), [RDSM](#), [SOAPS](#), [AFEL](#), [SNAMS](#), [MSM](#), [SynIRgy](#).
- since 2014 **Program Committee (conferences)**, [SIGIR](#), [ECAI](#), [ECIR](#), [ICWE](#), [CIKM](#), [WWW](#), [IUI](#), [HT](#), [EuroCSS](#), [RecSys](#), [WebSci](#), [OpenSym](#), [UMAP](#), [ECTEL](#).

International Research Projects Participated - last 10 years

- 2026–2029 **FFG COMET Module**, [Interfaces of Agent-Centric AI \(IACAI\)](#), Led by [Know Center Research GmbH](#), research conducted with partners, e.g., [TU Berlin](#), Role: key researcher for subproject on ethical and social aspects of agentic AI.

- 2026–2029 **HorizonEurope**, *CompreHensive EVALuation methods for GPAl models (CHEVAL)*, Led by [FORTH](#), *Role*: co-work package lead.
- 2026–2029 **HorizonEurope**, *Navigational AI assistant for Virtual worlds Immersion (NAVI)*, Led by [IDENER](#), *Role*: co-work package lead.
- 2026–2028 **Erasmus+**, *AIDEA*, Led by [CIAPE](#), *Italy*, *Role*: key researcher.
- 2025–2027 **HorizonEurope**, *Linked User-driven Multidisciplinary Exploration Network (LUMEN)*, Led by [CNRS](#), *Role*: key researcher.
- 2024–2026 **HorizonEurope**, *Enhancing Trust, Integrity and Efficiency in Research through next-level Reproducibility (TIER-2)*, Led by [Know Center Research GmbH](#), *Role*: key researcher.
- 2024–2025 **FFG BASIS**, *Prognosen von Ressourcenbedarfen (Pro'K'ress)*, Led by [DaphOS](#), *Role*: key researcher for privacy-preserving machine learning and recommender systems.
- 2024–2025 **OpenWebSearch Third-Party Call**, *Trustworthy Access to Knowledge from the Indexed Web (TILDE)*, Led by [University of Passau](#), *Role*: key researcher.
- 2024–2025 **FFG AI4Green**, *Strategic AI Roadmap for Mobility (SAIROM)*, Led by [University of Graz](#), *Role*: key researcher.
- 2024–2025 **Styrian AI Future Fund**, *FairRecSys*, Led by [TU Graz](#), *Role*: co-PI.
- 2023–2026 **FFG COMET Research Center**, *Know Center - Research Center for Trustworthy AI*, Led by [Know Center Research GmbH](#), COMET-funded research projects conducted with e.g., [SGS](#), *Role*: research area head for FAIR-AI.
- 2022–2026 **FFG COMET Module**, *Data-Driven Immersive Analytics (DDIA)*, Led by [Know Center Research GmbH](#), research conducted with partners, e.g., [University of Stuttgart](#), *Role*: key researcher for subproject on recommendations and LLMs.
- 2022–2025 **FFG FemTech**, *Radreisen4All*, Led by [Cyclebee](#), *Role*: key researcher.
- 2020–2023 **FFG COMET Module**, *Data-Driven Artificial Intelligence (DDAI)*, Led by [Know Center Research GmbH](#), research conducted with partners, e.g., [TU Delft](#), *Role*: key researcher for subproject on explainable and private AI for users.
- 2020–2023 **Erasmus+**, *Cogsteps*, Led by [University of Zagreb](#), *Role*: key researcher.
- 2020–2022 **Horizon2020**, *Trusted Secure Data Sharing Space (TRUSTS)*, Led by [Leibniz University Hannover](#), *Role*: task lead.
- 2020–2022 **Horizon2020**, *TRIPLE*, Led by [CNRS](#), *Role*: co-task lead.
- 2020–2022 **Horizon2020**, *AI4EU*, Led by [Thales SIX GTS France SAS](#), *Role*: co-task lead.
- 2019–2022 **FFG COMET Research Center**, *Know Center - Research Center for Big Data Analytics*, Led by [Know Center Research GmbH](#), COMET-funded research projects conducted with e.g., [DiePresse](#), *Role*: deputy research area head for Social Computing.
- 2019–2021 **FFG BASIS**, *Automated Marketing and Loyalty System for Retailers and Stores (Joloo)*, Led by [Joloo GmbH](#), *Role*: researcher for recommender systems.
- 2018–2020 **FFG BASIS**, *Studo App Sales Offensive*, Led by [Moshbit GmbH](#), *Role*: researcher.
- 2018–2020 **Styrian Health Fund**, *Health-Literacy und Diversity (HeLi-D)*, Led by [University of Graz](#), *Role*: work package lead.
- 2018–2020 **OpenAIRE Tender Call**, *OpenAIRE Matchmaker*, Led by [OpenAire](#), *Role*: researcher.
- 2015–2018 **Horizon2020**, *Analytics for Everyday Learning (AFEL)*, Led by [University of Galway](#), *Role*: co-task lead.
- 2015–2018 **Horizon2020**, *MoreGrasp*, Led by [TU Graz](#), *Role*: researcher for recommender systems.
- 2015–2018 **FFG Lighthouse**, *Data Market Austria (DMA)*, Led by [RSA](#), *Role*: researcher.

Univ.-Prof. Dr. Dominik Kowald

List of Publications (* indicates equal contributions)

Scholar: <https://scholar.google.at/citations?user=qQ-L8rUAAAAJ>

ORCID: <https://orcid.org/0000-0003-3230-6234>

Website: <https://dominikowald.info>

Five Most Important Publications

- [1] Dominik Kowald, Subhash Chandra Pujari, and Elisabeth Lex. Temporal effects on hashtag reuse in Twitter: A cognitive-inspired hashtag recommendation approach. In *Proceedings of the 26th International Conference on World Wide Web (WWW'17)*, pages 1401–1410, 2017. URL <https://doi.org/10.1145/3038912.3052605>. **Core conference rank (computer science): A***; full paper accept rate=17%

This publication was the final publication of my Ph.D. thesis and describes our interdisciplinary approach of using the cognitive architecture ACT-R to realize a **transparent recommender system** for hashtags..

- [2] Dominik Kowald, Peter Muellner, Eva Zangerle, Christine Bauer, Markus Schedl, and Elisabeth Lex. Support the underground: Characteristics of beyond-mainstream music listeners. *EPJ Data Science*, 10(1):14, 2021. URL <https://doi.org/10.1140/epjds/s13688-021-00268-9>. **SCImago journal rank (modeling and simulation): Q1; IF=2.5**

This paper was an interdisciplinary collaboration to **study societal aspects such as fairness and bias** in music streaming systems, which has led to broad media coverage (e.g., Rolling Stone Italy, APA Science)..

- [3] Sebastian Scher, Simone Kopeinik, Andreas Trügler, and Dominik Kowald. Modelling the long-term fairness dynamics of data-driven targeted help on job seekers. *Nature Scientific Reports*, 13(1):1727, 2023. URL <https://doi.org/10.1038/s41598-023-28874-9>. **SCImago journal rank (multidisciplinary): Q1, IF=3.9**

In this paper, we proposed the use of agent-based simulations to study long-term societal implications of AI deployment in labor markets, which can be seen as a **data-driven variant of Futures Studies**..

- [4] Harald Semmelrock, Tony Ross-Hellauer, Simone Kopeinik, Dieter Theiler, Armin Haberl, Stefan Thalmann, and Dominik Kowald. Reproducibility in machine-learning-based research: Overview, barriers, and drivers. *AI Magazine*, 46(2):e70002, 2025. URL <https://doi.org/10.1002/aaai.70002>. **SCImago journal rank (artificial intelligence): Q2; IF=3.2**

This review article discusses the lack of **open science** and reproducibility in AI-driven research, which is a critical issue in science, technology, and society studies. We also outline barriers and drivers to AI reproducibility, which should help researchers to better understand and address the underlying issues..

- [5] Robin Burke, Gediminas Adomavicius, Toine Bogers, Tommaso Di Noia, Dominik Kowald, Julia Neidhardt, Özlem Özgöbek, Maria Soledad Pera, Nava Tintarev, and Jürgen Ziegler. De-centering the (traditional) user: Multistakeholder evaluation of recommender systems. *International Journal of Human-Computer Studies*, 203:103560, 2025. URL <https://doi.org/10.1016/j.ijhcs.2025.103560>. **SCImago journal rank (human factors and ergonomics; human-computer interaction): Q1; IF=5.1**

This paper was the outcome of a Dagstuhl seminar, to which I was invited, and outlines a **participatory multistakeholder approach to evaluate recommender systems in a human-centric way**.

Journal Articles

- [1] Robin Burke, Gediminas Adomavicius, Toine Bogers, Tommaso Di Noia, Dominik Kowald, Julia Neidhardt, Özlem Özgöbek, Maria Soledad Pera, Nava Tintarev, and Jürgen Ziegler. De-centering the (traditional) user: Multistakeholder evaluation of recommender systems. *International Journal of Human-Computer Studies*, 203:103560, 2025. URL <https://doi.org/10.1016/j.ijhcs.2025.103560>.
- [2] Harald Semmelrock, Tony Ross-Hellauer, Simone Kopeinik, Dieter Theiler, Armin Haberl, Stefan Thalmann, and Dominik Kowald. Reproducibility in machine-learning-based research: Overview, barriers, and drivers. *AI Magazine*, 46(2):e70002, 2025. URL <https://doi.org/10.1002/aaai.70002>.
- [3] Peter Muellner, Anna Schreuer, Simone Kopeinik, Bernhard Wieser, and Dominik Kowald. Multistakeholder fairness in tourism: What can algorithms learn from tourism management? *Frontiers in Big Data*, 2025. URL <https://doi.org/10.3389/fdata.2025.1632766>.
- [4] Lea Demelius, Dominik Kowald, Simone Kopeinik, Roman Kern, and Andreas Trügler. Private and fair machine learning: Revisiting the disparate impact of differentially private sgd. *TMLR*, 2025. URL <https://openreview.net/pdf?id=o8zrx0bfTp>.
- [5] Valentin Förster, Jürgen Fleiß, Dominik Kowald, and Viktoria HSE Robertson. Detecting resale price maintenance with unsupervised machine learning. *Journal of Competition Law & Economics*, 2025. URL <https://doi.org/10.1093/joclec/nhaf020>.
- [6] Armin Haberl, Jürgen Fleiß, Dominik Kowald, and Stefan Thalmann. Take the aTrain: Introducing an interface for the accessible transcription of interviews. *Journal of Behavioral and Experimental Finance*, 2024. URL <https://doi.org/10.1016/j.jbef.2024.100891>.
- [7] Dominik Kowald, Sebastian Scher, Viktoria Pammer-Schindler, Peter Müllner, Kerstin Waxnegger, Lea Demelius, Angela Fessl, Maximilian Toller, Inti Gabriel Mendoza Estrada, Ilija Simic, Vedran Sabol, Andreas Trügler, Eduardo Veas, Roman Kern, Tomislav Nad, and Simone Kopeinik. Establishing and evaluating trustworthy AI: Overview and research challenges. *Frontiers in Big Data, Research Topic on Towards Fair AI for Trustworthy Artificial Intelligence*, 2024. URL <https://doi.org/10.3389/fdata.2024.1467222>.
- [8] Dominik Kowald, Deqing Yang, and Emanuel Lacic. Editorial: Reviews in recommender systems. *Frontiers in Big Data*, 6, 2024. URL <https://doi.org/10.3389/fdata.2024.1384460>.
- [9] Peter Müllner, Elisabeth Lex, Markus Schedl, and Dominik Kowald. ReuseKNN: Neighborhood reuse for differentially private KNN-based recommendations. *ACM TIST*, 14(5), 2023. URL <https://doi.org/10.1145/3608481>.
- [10] Sebastian Scher, Simone Kopeinik, Andreas Trügler, and Dominik Kowald. Modelling the long-term fairness dynamics of data-driven targeted help on job seekers. *Nature Scientific Reports*, 13(1):1727, 2023. URL <https://doi.org/10.1038/s41598-023-28874-9>.
- [11] Peter Müllner, Elisabeth Lex, Markus Schedl, and Dominik Kowald. Differential privacy in collaborative filtering recommender systems: A review. *Frontiers in Big Data*, 6, 2023. URL <https://doi.org/10.3389/fdata.2023.1249997>.
- [12] Tomislav Duricic, Dominik Kowald, Emanuel Lacic, and Elisabeth Lex. Beyond-accuracy: A review on diversity, serendipity and fairness in recommender systems based on graph neural networks. *Frontiers in Big Data*, 6, 2023. URL <https://doi.org/10.3389/fdata.2023.1251072>.
- [13] Dominik Kowald, Peter Muellner, Eva Zangerle, Christine Bauer, Markus Schedl, and Elisabeth Lex. Support the underground: Characteristics of beyond-mainstream music listeners. *EPJ Data Science*, 10(1):14, 2021. URL <https://doi.org/10.1140/epjds/s13688-021-00268-9>.

- [14] Elisabeth Lex, Dominik Kowald, Paul Seitlinger, Thi Ngoc Trang Tran, Alexander Felfernig, Markus Schedl, et al. Psychology-informed recommender systems. *Foundations and Trends® in Information Retrieval*, 15(2), 2021. URL <https://doi.org/10.1561/15000000090>.
- [15] Markus Schedl, Christine Bauer, Wolfgang Reisinger, Dominik Kowald, and Elisabeth Lex. Listener modeling and context-aware music recommendation based on country archetypes. *Frontiers in AI*, 3, 2021. URL <https://doi.org/10.3389/frai.2020.508725>.
- [16] Elisabeth Lex*, Dominik Kowald*, and Markus Schedl. Modeling popularity and temporal drift of music genre preferences. *TISMIR*, 3(1), 2020. URL <https://doi.org/10.5334/tismir.39>.
- [17] Emanuel Lacic, Markus Reiter-Haas, Dominik Kowald, Manoj Reddy Dareddy, Junghoo Cho, and Elisabeth Lex. Using autoencoders for session-based job recommendations. *UMUAI*, 30, 2020. URL <https://doi.org/10.1007/s11257-020-09269-1>.
- [18] Adolfo Ruiz-Calleja, Sebastian Dennerlein, Dominik Kowald, Dieter Theiler, Elisabeth Lex, and Tobias Ley. An infrastructure for workplace learning analytics: Tracing knowledge creation with the Social Semantic Server. *Journal of Learning Analytics*, 6(2), 2019. URL <http://dx.doi.org/10.18608/jla.2019.62.9>.
- [19] Ilire Hasani-Mavriqi, Dominik Kowald, Denis Helic, and Elisabeth Lex. Consensus dynamics in online collaboration systems. *Computational Social Networks*, 5(1), 2018. URL <https://doi.org/10.1186/s40649-018-0050-1>.
- [20] Paul Seitlinger, Tobias Ley, Dominik Kowald, Dieter Theiler, Ilire Hasani-Mavriqi, Sebastian Dennerlein, Elisabeth Lex, and Dietrich Albert. Balancing the fluency-consistency tradeoff in collaborative information search with a recommender approach. *Int. Journal of HCI*, 34(6), 2018. URL <https://doi.org/10.1080/10447318.2017.1379240>.
- [21] Simone Kopeinik, Dominik Kowald, Ilire Hasani-Mavriqi, and Elisabeth Lex. Improving collaborative filtering using a cognitive model of human category learning. *The Journal of Web Science*, 2(1), 2017. URL <http://dx.doi.org/10.1561/106.00000007>.
- [22] Christoph Trattner, Dominik Kowald, Paul Seitlinger, Tobias Ley, and Simone Kopeinik. Modeling activation processes in human memory to predict the use of tags in social bookmarking systems. *The Journal of Web Science*, 2(1), 2016. URL <http://dx.doi.org/10.1561/106.00000004>.
- [23] Patricia Santos, Sebastian Dennerlein, Dieter Theiler, John Cook, Tamsin Treasure-Jones, Debbie Holley, Micky Kerr, Graham Attwell, Dominik Kowald, and Elisabeth Lex. Going beyond your personal learning network, using recommendations and trust through a multimedia question-answering service for decision-support: A case study in the healthcare. *Journal of Universal Computer Science*, 22(3), 2016. URL <https://doi.org/10.3217/jucs-022-03-0340>.

Conference Publications and Proceedings

- [1] Florian Atzenhofer-Baumgartner, Georg Vogeler, and Dominik Kowald. A multistakeholder approach to value-driven co-design of recommender system evaluation metrics in digital archives. In *RecSys'25*, 2025. URL <https://doi.org/10.1145/3705328.3748026>.
- [2] Robin Ungruh, Alejandro Bellogín, Dominik Kowald, and Maria Soledad Pera. Impacts of mainstream-driven algorithms on recommendations for children across domains: A reproducibility study. In *RecSys'25*, 2025. URL <https://doi.org/10.1145/3705328.3748160>.
- [3] Andrea Forster, Simone Kopeinik, Denis Helic, Stefan Thalmann, and Dominik Kowald. Exploring the effect of context-awareness and popularity calibration on popularity bias in POI recommendations. In *RecSys'25*, 2025. URL <https://doi.org/10.1145/3705328.3748017>.

- [4] Dominik Kowald. Investigating popularity bias amplification in recommender systems employed in the entertainment domain. In *EWAF'25*, 2025. URL <https://proceedings.mlr.press/v294/kowald25a.html>.
- [5] Gregor Autischer, Kerstin Waxnegger, and Dominik Kowald. AI certification and assessment catalogues: Practical use and challenges in the context of the European AI Act. In *EWAF'25*, 2025. URL <https://proceedings.mlr.press/v294/autischer25a.html>.
- [6] Elisabeth Lex, Kevin Innerebner, Marko Tkalcic, Dominik Kowald, and Markus Schedl. Hybrid AI for human-centric personalization (HyPer). In *UMAP'25 Adjunct*, 2025. URL <https://doi.org/10.1145/3708319.3727563>.
- [7] Kevin Innerebner, Dominik Kowald, Markus Schedl, and Elisabeth Lex. Hybrid personalization using declarative and procedural memory modules of the cognitive architecture ACT-R. In *UMAP'25 Adjunct*, 2025. URL <https://doi.org/10.1145/3708319.3734176>.
- [8] Oleg Lesota, Jonas Geiger, Max Walder, Dominik Kowald, and Markus Schedl. Oh, behave! Country representation dynamics created by feedback loops in music recommender systems. In *RecSys'24*, 2024. URL <https://doi.org/10.1145/3640457.3688187>.
- [9] Tomislav Duricic, Peter Müllner, Nicole Weidinger, Neven Elsayed, Dominik Kowald, and Eduardo Veas. AI-powered immersive assistance for interactive task execution in industrial environments. In *ECAI'24*, 2024. URL <https://www.doi.org/10.3233/FAIA241037>.
- [10] Gustavo Escobeda, Marta Moscati, Peter Müllner, Simone Kopeinik, Dominik Kowald, Elisabeth Lex, and Markus Schedl. Making Alice appear like Bob: A probabilistic preference obfuscation method for implicit feedback recommendation models. In *ECML-PKDD'24*. Springer, 2024. URL https://doi.org/10.1007/978-3-031-70368-3_21.
- [11] Peter Müllner, Elisabeth Lex, Markus Schedl, and Dominik Kowald. The impact of differential privacy on recommendation accuracy and popularity bias. In *ECIR'24*. Springer, 2024. URL https://doi.org/10.1007/978-3-031-56066-8_33.
- [12] Florian Königsdorfer, Armin Haberl, Dominik Kowald, Tony Ross-Hellauer, and Stefan Thalmann. Black box or open science? A study on reproducibility in AI development papers. In *HICSS'24*, 2024. URL <https://hdl.handle.net/10125/106458>.
- [13] Dominik Kowald, Deqing Yang, and Emanuel Lacic, editors. *Reviews in recommender systems*, 2024. Frontiers Media. URL <https://doi.org/10.3389/978-2-8325-4766-3>.
- [14] Florian Atzenhofer-Baumgartner, Bernhard Geiger, Georg Vogeler, and Dominik Kowald. Value identification in multistakeholder recommender systems for humanities and historical research: The case of the digital archive Monasterium.net. In *Normalize@RecSys'24*, 2024. URL <https://ceur-ws.org/Vol-3898/paper4.pdf>.
- [15] Florian Atzenhofer-Baumgartner, Bernhard Geiger, Christoph Trattner, Georg Vogeler, and Dominik Kowald. Challenges in implementing a recommender system for historical research in the humanities. In *AltRecSys@RecSys'24*. ACM, 2024. URL <https://doi.org/10.48550/arXiv.2410.20909>.
- [16] Marta Moscati, Christian Wallmann, Markus Reiter-Haas, Dominik Kowald, Elisabeth Lex, and Markus Schedl. Integrating the ACT-R framework with collaborative filtering for explainable sequential music recommendation. In *RecSys'23*, 2023. URL <https://doi.org/10.1145/3604915.3608838>.
- [17] Emanuel Lacic, Tomislav Duricic, Leon Fadljevic, Dieter Theiler, and Dominik Kowald. Uptrendz: API-centric real-time recommendations in multi-domain settings. In *ECIR'23*. Springer, 2023. URL https://doi.org/10.1007/978-3-031-28241-6_23.

- [18] Dominik Kowald*, Gregor Mayr*, Markus Schedl, and Elisabeth Lex. A study on accuracy, miscalibration, and popularity bias in recommendations. In *BIAS'23*, pages 1–16. Springer, 2023. URL https://doi.org/10.1007/978-3-031-37249-0_1.
- [19] Peter Muellner, Stefan Schmerda, Dieter Theiler, Stefanie Lindstaedt, and Dominik Kowald. Towards employing recommender systems for supporting data and algorithm sharing. In *DataEconomy@CoNext'22*, 2022. URL <https://doi.org/10.1145/3565011.3569055>.
- [20] Emanuel Lacic, Leon Fadljevic, Franz Weissenboeck, Stefanie Lindstaedt, and Dominik Kowald. What drives readership? An online study on user interface types and popularity bias mitigation in news article recommendations. In *ECIR'22*, 2022. URL https://doi.org/10.1007/978-3-030-99739-7_20.
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- [22] Emanuel Lacic and Dominik Kowald. Recommendations in a multi-domain setting: Adapting for customization, scalability and real-time performance. In *Industry-Day Track of ECIR'22*, 2022. URL <https://doi.org/10.48550/arXiv.2203.01256>.
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- [24] Peter Müllner, Elisabeth Lex, and Dominik Kowald. Impact of meta learning for privacy-preserving recommender systems. In *TRAI'21*, 2021. URL <https://doi.org/10.5281/zenodo.15221745>.
- [25] Oleg Lesota, Alessandro Melchiorre, Navid Rekabsaz, Stefan Brandl, Dominik Kowald, Elisabeth Lex, and Markus Schedl. Analyzing item popularity bias of music recommender systems: Are different genders equally affected? In *RecSys'21*, 2021. URL <https://doi.org/10.1145/3460231.3478843>.
- [26] Tomislav Duricic, Dominik Kowald, Markus Schedl, and Elisabeth Lex. My friends also prefer diverse music: Homophily and link prediction with user preferences for mainstream, novelty, and diversity in music. In *MSDNS@ASONAM'21*, 2021. URL <https://doi.org/10.1145/3487351.3492706>.
- [27] Peter Muellner, Elisabeth Lex, and Dominik Kowald. Position paper on simulating privacy dynamics in recommender systems. In *SimuRec@RecSys'21*, 2021. URL <https://doi.org/10.48550/arXiv.2109.06473>.
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- [30] Tomislav Duricic, Hussain Hussain, Emanuel Lacic, Dominik Kowald, Denis Helic, and Elisabeth Lex. Empirical comparison of graph embeddings for trust-based collaborative filtering. In *ISMIS'20*. Springer, 2020. URL https://doi.org/10.1007/978-3-030-59491-6_17.
- [31] Leon Fadljevic, Katharina Maitz, Dominik Kowald, Viktoria Pammer-Schindler, and Barbara Gasteiger-Klipcera. Slow is good: The effect of diligence on student performance in the case of an adaptive learning system for health literacy. In *LAK'20*, 2020. URL <https://doi.org/10.1145/3375462.3375502>.

- [32] Simone Kopeinik, Elisabeth Lex, Dominik Kowald, Dietrich Albert, and Paul Seitlinger. A real-life school study of confirmation bias and polarisation in information behaviour. In *ECTEL'19*, 2019. URL https://doi.org/10.1007/978-3-030-29736-7_31.
- [33] Emanuel Lacic*, Dominik Kowald*, Dieter Theiler, Matthias Traub, Lucky Kuffer, Stefanie Lindstaedt, and Elisabeth Lex. Evaluating tag recommendations for e-book annotation using a semantic similarity metric. In *REVEAL@RecSys'19*, 2019. URL <https://doi.org/10.48550/arXiv.1908.04042>.
- [34] Dominik Kowald, Matthias Traub, Dieter Theiler, Heimo Gursch, Stefanie Lindstaedt, Roman Kern, and Elisabeth Lex. Using the open Meta Kaggle dataset to evaluate tripartite recommendations in data markets. In *REVEAL@RecSys'19*, 2019. URL <https://doi.org/10.48550/arXiv.1908.04017>.
- [35] Dominik Kowald*, Elisabeth Lex*, and Markus Schedl. Modeling artist preferences for personalized music recommendations. In *ISMIR'19*, 2019. URL <https://archives.ismir.net/ismir2019/latebreaking/000001.pdf>.
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- [37] Dominik Kowald*, Elisabeth Lex*, and Markus Schedl. Modeling artist preferences of users with different music consumption patterns for fair music recommendations. In *EUROCSS'19*, 2019. URL <https://doi.org/10.48550/arXiv.1907.09781>.
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