Priv.-Doz. Dr. Dominik Kowald

Curriculum Vitae

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

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▬▬▬ Education

2017–2024   **Priv.-Doz. (Habilitation), Applied Computer Science**, *TU Graz, Institute of Interactive Systems and Data Science (ISDS)*, 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. Stefanie Lindstaedt (TU Graz) & Prof. Tobias Ley (Tallinn University), advisor: Assoc.Prof. Elisabeth Lex (TU Graz)

2009–2012   **Dipl.Ing. (MSc.), Computer Science**, *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
Supervisors: Assoc.Prof. Christian Gütl (TU Graz), advisor: Assoc.Prof. Mohammad Al-Smadi (TU Graz)

2006–2009   **BSc., Computer Science**, *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:* Joachim Maderer

2001–2006   **Matura, Manufacturing Computer Science**, *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 2024   **Lecturer**, *University of Graz, Business Analytics and Data Science Center (BANDAS)*, Graz, Austria.
Teaching focus: relational databases, query languages, business analytics and digitalization

since 2022   **Lecturer and Senior Researcher**, *TU Graz, Institute of Interactive Systems and Data Science (ISDS), FAIR-AI*, Graz, Austria.
Venia docendi: scientific subject Applied Computer Science (since June 2024)
Teaching focus: relational databases, data management, NoSQL databases, scientific writing with focus on recommender systems and trustworthy AI

since 2021   **Research Area Manager**, *Know-Center GmbH, FAIR-AI*, Graz, Austria.
Research focus: trustworthy AI, reproducibility in machine learning, differential privacy in recommender systems, long-term dynamics of algorithmic fairness, popularity bias in recommender systems and information retrieval
Research visit: XAI group of Prof. Nava Tintarev, Maastricht University, The Netherlands (November 2021); funded by the Provincial Government of Styria

2018–2021	**Deputy Research Area Manager**, *Know-Center GmbH, FAIR-AI (formerly called Social Computing)*, Graz, Austria.
	Research focus: psychology-informed recommender systems, social network analysis, multi-domain recommender systems, data platforms, microservice-based software architectures, learning analytics
2012–2018	**Ph.D. Candidate and Researcher**, *Know-Center GmbH, FAIR-AI (formerly called 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
2010–2012	**Research Project Assistant**, *TU Graz, Institute of Interactive Systems and Data Science (ISDS)*, Graz, Austria.
	Research focus: Wiki systems, e-assessment, technology-enhanced learning, Web technologies

▬▬▬ University Courses Taught

since 2024	**Data Management**, *TU Graz*, 4 ECTS, Bachelor Software Engineering & Management, Computer Science, Information & Computer Engineering.
	Role: lecturer (~500 students)
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 2023	**Databases**, *TU Graz*, 3 ECTS, Bachelor Information & Computer Engineering, Master Computational Social Systems, Electrical & Audio Engineering.
	Role: lecturer (~100 students)
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)
2016	**Science 2.0**, *TU Graz*, 3 ECTS, Master Software Engineering & Management, Computer science.
	Role: course assistant responsible for the exercises (~50 students)
since 2014	**Guest Lectures**, FH Joanneum (recommender systems for journalism), PUC Chile (practical assignment, content-based recommender systems), University of Graz (AI reproducibility).
2014	**Web Science & Web Technology**, *TU Graz*, 3 ECTS, Bachelor Software Engineering & Management, Master Information & Computer Engineering.
	Role: course assistant responsible for the exercises (~200 students)
2011–2012	**Information Search & Retrieval**, *TU Graz*, 5 ECTS, Master Software Engineering & Management, Computer Science, Information & Computer Engineering.
	Role: course assistant responsible for the exercises (~100 students)
2009	**Data Structures & Algorithms**, *TU Graz*, 1.5 ECTS, Bachelor Biomedical Engineering, Technical Mathematics, Software Engineering & Management, Computer Science, Information & Computer Engineering.
	Role: student assistant (tutor) responsible for one group (~30 students)

▬▬▬ Student Supervision and Mentoring

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: *Multi-stakeholder Recommender Systems*, Co-supervision with Prof. Stefan Thalmann, University of Graz.

since 2024 **Master's thesis**, *TU Graz*, Valentin Forster: *Detecting Price Anomalies Indicative of Antitrust Violations with Machine Learning*, Co-supervision with Prof. Stefan Thalmann, University of Graz.

2024 **Internship**, *Know-Center GmbH*, Adrian Marangoni: Fairness in AI for 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 Machine Learning-based Research*.

2023 **Bachelor thesis**, *TU Graz*, Michael Pöchlinger: *Metrics to Measure Dataset Quality and Bias in Data*.

2022 **Bachelor thesis and Master's project**, *TU Graz*, Gregor Mayr: *Calibration in Recommender Systems*, Co-supervision with Assoc.Prof. Elisabeth Lex, TU Graz.

since 2020 **Ph.D. thesis**, *TU Graz*, Peter Müllner: *Privacy in Recommender Systems*, Co-supervision with Assoc.Prof. Elisabeth Lex, TU Graz.

since 2020 **Ph.D. thesis**, *TU Graz*, Tomislav Duricic: *Sparsity and Interpretability of Graph-based Recommender Systems*, Co-supervision with Assoc.Prof. Elisabeth Lex, TU Graz.

2020 **Master's thesis**, *TU Graz*, Mario Wagner: *Diversity-Aware Recommendation of Tweets*, Co-supervision with Assoc.Prof. Elisabeth Lex, TU Graz.

2019 **Master's thesis**, *TU Graz*, Peter Müllner: *Studying Non-Mainstream Listening Behavior For Music Recommendations*, Co-supervision with Assoc.Prof. Elisabeth Lex, TU Graz.

2016 **Bachelor thesis**, *TU Graz*, Andreas Punz: *Detection and Analysis of Communities on Twitter*, Co-supervision with Assoc.Prof. Elisabeth Lex, TU Graz.

Session Chairing, Workshops, & Seminar Participation

2024 **Dagstuhl Seminar**, *Evaluation perspectives of recommender systems Dagstuhl seminar*, Schloß Dagstuhl, Germany, *Role:* participant.

2024 **CRBAM Workshop**, *Fair recommendations for cyclists workshop at 8th Cycling Research Board Annual Meeting (CRBAM)*, Zürich, 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 **Know-Center Summer Academy**, *Know-Center summer academy on recommender systems*, Graz, Austria, *Role:* co-organizer.

2018 **CIKM Conference**, *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 Conference**, *Social Computing track at i-KNOW'15*, Graz, Austria, *Role:* session chair.

2013 **i-KNOW Conference**, *Science 2.0 track at i-KNOW'13*, Graz, Austria, *Role:* session chair.

Awards

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

2024–2027 **HorizonEurope**, *Linked User-driven Multidisciplinary Exploration Network (LUMEN)*, 415K€ for Know-Center (83K€ for FAIR-AI), *Role:* key researcher.

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-PI.

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 manager 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.

2020–2023 **FFG COMET Module**, *Data-Driven Artifical Intelligence (DDAI)*, 3.7M€ for Know-Center (700K for Social Computing), *Role:* key researcher for subproject on explainable and private AI for users.

2020–2023 **Erasmus+**, *Cogsteps*, 130K€ for FAIR-AI at Know-Center and TU Graz, *Role:* key researcher.

2020–2022 **Horizon2020**, *Trusted Secure Data Sharing Space (TRUSTS)*, 730K€ for Know-Center (138k for Social Computing), *Role:* task lead.

2020–2022 **Horizon2020**, *TRIPLE*, 377K€ for Know-Center (120K for Social Computing), *Role:* co-task lead.

2020–2022 **Horizon2020**, *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 manager for Social Computing.

2019–2021 **FFG BASIS**, *Automated Marketing and Loyalty System for Retailers and Stores (Jolioo)*, 120K€ for Social Computing at Know-Center, *Role:* researcher for recommender systems part.

2018–2020 **FFG BASIS**, *Studo App Sales Offensive*, 120K€ for Social Computing at Know-Center, *Role:* researcher for recommender systems part.

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)*, 75K€ for Know-Center (286K€ for Know-Center (170K€ for Social Computing), *Role:* researcher for recommender systems part.

▬▬▬ Selected Media Reactions

2024 **Trend**, *Der AI Act - Chance für Europa*, News Article on legal aspects of trustworthy AI, German.

2024 **MediaFutures**, *Transparency, privacy and fairness in recommender systems*, News article on trustworthiness aspects of recommender systems, English.

2023 **DerStandard**, *Wie Recruiting mit KI in Zukunft auch ohne Diskriminierung möglich ist*, News article on fair AI in the labor market, German.

2022 **APA Science**, *Digitale Stereotype*, News article on fairness in AI, German.

2022 **APA Science**, *Wie digitale Stereotype aus der Welt geschafft werden sollen*, News article on popularity bias in recommender systems, German.

2021 **BiomedCentral**, *Algorithm-Generated Music Recommendations: Low Accuracy for Fans of Beyond-Mainstream Music*, News article on beyond-mainstream users in music recommender systems, English.

Additional Qualifications

2023 **Team lead**, *Wolfgang Eder HR development*, Future team lead certificate, Know-Center team lead programme.

2023 **Teaching**, *TU Graz Teaching Academy*, Advanced teaching certificate, Advanced didactics and teaching skills.

2023 **Summer school**, *Recommender systems summer school*, Participant, Copenhagen, Denmark.

2022 **Teaching**, *TU Graz Teaching Academy*, Basic teaching certificate, Basic didactics and teaching skills.

2019 **Summer school**, *Computational Social Science summer school on methods for analyzing multimedia data*, Participant, Berlin, Germany.

Membership and Activities in Professional Associations

since 2024 **Austrian Standards**, *Committee for AI standardization*, *Role:* committee member.

since 2023 **Big Data Value Association Task Force**, *Ethical and Trustworthy Artifical and Machine Intelligence (ETAMI) task force of the Big Data Value Association (BDVA)*, *Role:* task force member.

since 2023 **Know-Center**, *Works Council of Know-Center*, *Role:* substitute member.

since 2021 **Frontiers in Big Data**, *Editorial board of Recommender Systems Section*, *Role:* review editor.

since 2014 **ACM**, *Association for Computing Machinery (ACM)*, *Role:* member (since 2017: professional member).

Research Community Services

2022-2023 **Journal Special Issue Editor**, *Frontiers in Big Data - Reviewers in Recommender Systems*, 10 review articles in the field of recommender systems.

since 2021 **Invited Research Talks**, *Conference of the Gender Studies Association Austria, MediaFutures Bergen, Wissenschaftsforum Cologne, EBDVA, DataWeek*.

since 2021 **Journal Review Editor**, *Frontiers in Big Data - Recommender Systems Section*.

since 2017 **Reviewing for Journals**, *Journal of HCI, TIST, Frontiers in Psychology, Applied Soft Computing, EPJ Data Science, TWEB, TCSS, PlosOne, JSS, TKDE, IR Journal, SNAM, AJSE, TLT*.

since 2014 **Reviewing for Conferences**, *SIGIR, ECAI, ECIR (senior reviewer for reproducibility track), ICWE, CIKM, WWW, IUI, HT, EuroCSS, RecSys, WebSci, OpenSym, UMAP, ECTEL (senior reviewer)*.

# Peer-Reviewed Publications (* indicates equal contributions)

[1] 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.

[2] 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.

[3] 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.

[4] 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.

[5] 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.

[6] 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.

[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, Andrea Truegler, 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, Yang Deqing, and Emanuel Lacic, editors. *Reviews in recommender systems*, 2024. Frontiers Media. URL https://doi.org/10.3389/978-2-8325-4766-3.

[9] 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.

[10] Dominik Kowald, Markus Reiter-Haas, Simone Kopeinik, Markus Schedl, and Elisabeth Lex. Transparent music preference modeling and recommendation with a model of human memory theory. In *A Human-centered Perspective of Intelligent Personalized Environments and Systems*. Springer, 2024. URL https://doi.org/10.1007/978-3-031-55109-3_4.

[11] 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*. ACM, 2024. URL https://doi.org/10.48550/arXiv.2409.17769.

[12] 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.

[13] 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.

[14] 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), 2023. URL https://doi.org/10.1038/s41598-023-28874-9.

[15] 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.

[16] 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.

[17] 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.

[18] 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.

[19] 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.

[20] 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.

[21] 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.

[22] Dominik Kowald and Emanuel Lacic. Popularity bias in collaborative filtering-based multimedia recommender systems. In *BIAS'22*. Springer, 2022. URL https://doi.org/10.1007/978-3-031-09316-6_1.

[23] 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.

[24] 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), 2021. URL https://doi.org/10.1140/epjds/s13688-021-00268-9.

[25] 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/10.1561/1500000090.

[26] 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.

[27] Peter Muellner, Dominik Kowald, and Elisabeth Lex. Robustness of meta matrix factorization against strict privacy constraints. In *ECIR'21*. Springer, 2021. URL https://doi.org/10.1007/978-3-030-72240-1.

[28] 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.

[29] 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.

[30] 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.

[31] 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.

[32] 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.

[33] Dominik Kowald, Markus Schedl, and Elisabeth Lex. The unfairness of popularity bias in music recommendation: A reproducibility study. In *ECIR'20*. Springer, 2020. URL https://doi.org/10.1007/978-3-030-45442-5_5.

[34] Dominik Kowald*, Elisabeth Lex*, and Markus Schedl. Utilizing human memory processes to model genre preferences for personalized music recommendations. In *HUMANIZE@IUI'20*. Association of Computing Machinery, 2020. URL https://doi.org/10.48550/arXiv.2003.10699.

[35] 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.

[36] 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.

[37] 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.

[38] 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.

[39] 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.

[40] 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.

[41] 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.

[42] Elisabeth Lex and Dominik Kowald. The impact of time on hashtag reuse in twitter: A cognitive-inspired hashtag recommendation approach. In *INFORMATIK'19*, 2019. URL https://doi.org/10.18420/inf2019_46.

[43] 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.

[44] Tomislav Duricic, Emanuel Lacic, Dominik Kowald, and Elisabeth Lex. Exploiting weak ties in trust-based recommender systems using regular equivalence. In *EUROCSS'19*, 2019. URL https://doi.org/10.48550/arXiv.1907.11620.

[45] 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.

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