



Universiteit  
Leiden  
The Netherlands

## **Cleared for take-off: Game-based learning to prepare airline pilots for critical situations**

Kuindersma, E.C.

### **Citation**

Kuindersma, E. C. (2019, October 24). *Cleared for take-off: Game-based learning to prepare airline pilots for critical situations*. Retrieved from <https://hdl.handle.net/1887/77168>

Version: Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/77168>

**Note:** To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The following handle holds various files of this Leiden University dissertation:  
<http://hdl.handle.net/1887/77168>

**Author:** Kuindersma, E.C.

**Title:** Cleared for take-off: Game-based learning to prepare airline pilots for critical situations

**Issue Date:** 2019-10-24

# List of publications

The investigations performed during this PhD research resulted in the following publications.

- Kuindersma, E. C., Field, J. & van der Pal, J. (2015). Game-based training for airline pilots. Paper presented at the Simulation-Based Training for the Digital Generation conference at the Royal Aeronautical Society. London, UK.
- Kuindersma, E. C., van der Pal, J., van den Herik, H. J. & Plaat, A. (2015). Voluntary play in serious games. In A. De Gloria & R. C. Veltkamp (Eds.), *Games and Learning Alliance, 4th international conference* (pp. 131–140). Heidelberg, Germany: Springer.
- Kuindersma, E. C., van der Pal, J., van den Herik, H. J., & Plaat, A. (2016a). Comparing voluntary and mandatory gameplay. *International Journal of Serious Games*, 3, 17.
- Kuindersma, E. C., Van der Pal, J., van den Herik, H. J., & Plaat, A. (2016b). Shuttle to Mars: Training airline pilots for critical situations. Poster and handout presented at the Meaningful Play Conference. East Lansing, MI.
- Kuindersma, E. C., van der Pal, J., van den Herik, H. J., & Plaat, A. (2017). Building a game to build competencies. In J. Dias, P. A. Santos & R. C. Veltkamp (Eds.), *Games and Learning Alliance, 6th international conference* (pp. 14-24). Heidelberg, Germany: Springer.



# SIKS Dissertation Series

## 2011

- 1 Botond Cseke (RUN) *Variational Algorithms for Bayesian Inference in Latent Gaussian Models*
- 2 Nick Tinnemeier (UU) *Organizing Agent Organizations: Syntax and Operational Semantics of an Organization-Oriented Programming Language*
- 3 Jan Martijn van der Werf (TUE) *Compositional Design and Verification of Component-Based Information Systems*
- 4 Hado van Hasselt (UU) *Insights in Reinforcement Learning: Formal analysis and empirical evaluation of temporal-difference*
- 5 Base van der Raadt (VUA) *Enterprise Architecture Coming of Age: Increasing the Performance of an Emerging Discipline*
- 6 Yiwen Wang (TUE) *Semantically-Enhanced Recommendations in Cultural Heritage*
- 7 Yujia Cao (UT) *Multimodal Information Presentation for High Load Human Computer Interaction*
- 8 Nieske Vergunst (UU) *BDI-based Generation of Robust Task-Oriented Dialogues*
- 9 Tim de Jong (OU) *Contextualised Mobile Media for Learning*
- 10 Bart Bogaert (UvT) *Cloud Content Contention*
- 11 Dhaval Vyas (UT) *Designing for Awareness: An Experience-focused HCI Perspective*
- 12 Carmen Bratosin (TUE) *Grid Architecture for Distributed Process Mining*
- 13 Xiaoyu Mao (UvT) *Airport under Control. Multiagent Scheduling for Airport Ground Handling*
- 14 Milan Lovric (EUR) *Behavioral Finance and Agent-Based Artificial Markets*
- 15 Marijn Koolen (UvA) *The Meaning of Structure: the Value of Link Evidence for Information Retrieval*
- 16 Maarten Schadd (UM) *Selective Search in Games of Different Complexity*
- 17 Jiyin He (UvA) *Exploring Topic Structure: Coherence, Diversity and Relatedness*
- 18 Mark Ponsen (UM) *Strategic Decision-Making in complex games*
- 19 Ellen Rusman (OU) *The Mind's Eye on Personal Profiles*
- 20 Qing Gu (VUA) *Guiding service-oriented software engineering: A view-based approach*
- 21 Linda Terlouw (TUD) *Modularization and Specification of Service-Oriented Systems*
- 22 Junte Zhang (UvA) *System Evaluation of Archival Description and Access*
- 23 Wouter Weerkamp (UvA) *Finding People and their Utterances in Social Media*
- 24 Herwin van Welbergen (UT) *Behavior Generation for Interpersonal Coordination with Virtual Humans On Specifying, Scheduling and Realizing Multimodal Virtual Human Behavior*
- 25 Syed Waqar ul Qounain Jaffry (VUA) *Analysis and Validation of Models for Trust Dynamics*
- 26 Matthijs Aart Pontier (VUA) *Virtual Agents for Human Communication: Emotion Regulation and Involvement-Distance Trade-Offs in Embodied Conversational Agents and Robots*
- 27 Aniel Bhulai (VUA) *Dynamic website optimization through autonomous management of design patterns*
- 28 Rianne Kaptein (UvA) *Effective Focused Retrieval by Exploiting Query Context and Document Structure*
- 29 Faisal Kamiran (TUE) *Discrimination-aware Classification*
- 30 Egon van den Broek (UT) *Affective Signal Processing (ASP): Unraveling the mystery of emotions*
- 31 Ludo Waltman (EUR) *Computational and Game-Theoretic Approaches for Modeling Bounded Rationality*
- 32 Nees-Jan van Eck (EUR) *Methodological Advances in Bibliometric Mapping of Science*
- 33 Tom van der Weide (UU) *Arguing to Motivate Decisions*
- 34 Paolo Turrini (UU) *Strategic Reasoning in Interdependence: Logical and Game-theoretical Investigations*
- 35 Maaïke Harbers (UU) *Explaining Agent Behavior in Virtual Training*
- 36 Erik van der Spek (UU) *Experiments in serious game design: a cognitive approach*
- 37 Adriana Burlutiu (RUN) *Machine Learning for Pairwise Data, Applications for Preference Learning and Supervised Network Inference*
- 38 Nyree Lemmens (UM) *Bee-inspired Distributed Optimization*
- 39 Joost Westra (UU) *Organizing Adaptation using Agents in Serious Games*
- 40 Viktor Clerc (VUA) *Architectural Knowledge Management in Global Software Development*
- 41 Luan Ibraimi (UT) *Cryptographically Enforced Distributed Data Access Control*

- 42 Michal Sindlar (UU) *Explaining Behavior through Mental State Attribution*
- 43 Henk van der Schuur (UU) *Process Improvement through Software Operation Knowledge*
- 44 Boris Reuderink (UT) *Robust Brain-Computer Interfaces*
- 45 Herman Stehouwer (UvT) *Statistical Language Models for Alternative Sequence Selection*
- 46 Beibei Hu (TUD) *Towards Contextualized Information Delivery: A Rule-based Architecture for the Domain of Mobile Police Work*
- 47 Azizi Bin Ab Aziz (VUA) *Exploring Computational Models for Intelligent Support of Persons with Depression*
- 48 Mark Ter Maat (UT) *Response Selection and Turn-taking for a Sensitive Artificial Listening Agent*
- 49 Andreea Niculescu (UT) *Conversational interfaces for task-oriented spoken dialogues: design aspects influencing interaction quality*
- 2012**
- 1 Terry Kakeeto (UvT) *Relationship Marketing for SMEs in Uganda*
- 2 Muhammad Umair (VUA) *Adaptivity, emotion, and Rationality in Human and Ambient Agent Models*
- 3 Adam Vanya (VUA) *Supporting Architecture Evolution by Mining Software Repositories*
- 4 Jurriaan Souer (UU) *Development of Content Management System-based Web Applications*
- 5 Marijn Plomp (UU) *Maturing Interorganisational Information Systems*
- 6 Wolfgang Reinhardt (OU) *Awareness Support for Knowledge Workers in Research Networks*
- 7 Rianne van Lambalgen (VUA) *When the Going Gets Tough: Exploring Agent-based Models of Human Performance under Demanding Conditions*
- 8 Gerben de Vries (UvA) *Kernel Methods for Vessel Trajectories*
- 9 Ricardo Neisse (UT) *Trust and Privacy Management Support for Context-Aware Service Platforms*
- 10 David Smits (TUE) *Towards a Generic Distributed Adaptive Hypermedia Environment*
- 11 J. C. B. Rantham Prabhakara (TUE) *Process Mining in the Large: Preprocessing, Discovery, and Diagnostics*
- 12 Kees van der Sluijs (TUE) *Model Driven Design and Data Integration in Semantic Web Information Systems*
- 13 Suleman Shahid (UvT) *Fun and Face: Exploring non-verbal expressions of emotion during playful interactions*
- 14 Evgeny Knutov (TUE) *Generic Adaptation Framework for Unifying Adaptive Web-based Systems*
- 15 Natalie van der Wal (VUA) *Social Agents. Agent-Based Modelling of Integrated Internal and Social Dynamics of Cognitive and Affective Processes*
- 16 Fiemke Both (VUA) *Helping people by understanding them: Ambient Agents supporting task execution and depression treatment*
- 17 Amal Elgammal (UvT) *Towards a Comprehensive Framework for Business Process Compliance*
- 18 Eltjo Poort (VUA) *Improving Solution Architecting Practices*
- 19 Helen Schonenberg (TUE) *What's Next? Operational Support for Business Process Execution*
- 20 Ali Bahramisharif (RUN) *Covert Visual Spatial Attention, a Robust Paradigm for Brain-Computer Interfacing*
- 21 Roberto Cornacchia (TUD) *Querying Sparse Matrices for Information Retrieval*
- 22 Thijs Vis (UvT) *Intelligence, politie en veiligheidsdienst: verenigbare grootheden?*
- 23 Christian Muehl (UT) *Toward Affective Brain-Computer Interfaces: Exploring the Neurophysiology of Affect during Human Media Interaction*
- 24 Laurens van der Werff (UT) *Evaluation of Noisy Transcripts for Spoken Document Retrieval*
- 25 Silja Eckartz (UT) *Managing the Business Case Development in Inter-Organizational IT Projects: A Methodology and its Application*
- 26 Emile de Maat (UvA) *Making Sense of Legal Text*
- 27 Hayrettin Gurkok (UT) *Mind the Sheep! User Experience Evaluation & Brain-Computer Interface Games*
- 28 Nancy Pascall (UvT) *Engendering Technology Empowering Women*
- 29 Almer Tigelaar (UT) *Peer-to-Peer Information Retrieval*
- 30 Alina Pommeranz (TUD) *Designing Human-Centered Systems for Reflective Decision Making*
- 31 Emily Bagarukayo (RUN) *A Learning by Construction Approach for Higher Order Cognitive Skills Improvement, Building Capacity and Infrastructure*
- 32 Wietske Visser (TUD) *Qualitative multi-criteria preference representation and reasoning*
- 33 Rory Sie (OUN) *Coalitions in Cooperation Networks (COCOON)*
- 34 Pavol Jancura (RUN) *Evolutionary analysis in PPI networks and applications*
- 35 Evert Haasdijk (VUA) *Never Too Old To Learn: Online Evolution of Controllers in Swarm- and Modular Robotics*
- 36 Denis Ssebugwawo (RUN) *Analysis and Evaluation of Collaborative Modeling Processes*
- 37 Agnes Nakakawa (RUN) *A Collaboration Process for Enterprise Architecture Creation*
- 38 Selmar Smit (VUA) *Parameter Tuning and Scientific Testing in Evolutionary Algorithms*
- 39 Hassan Fatemi (UT) *Risk-aware design of value and coordination networks*
- 40 Agus Gunawan (UvT) *Information Access for SMEs in Indonesia*
- 41 Sebastian Kelle (OU) *Game Design Patterns for Learning*
- 42 Dominique Verpoorten (OU) *Reflection Amplifiers in self-regulated Learning*
- 43 Anna Tordai (VUA) *On Combining Alignment Techniques*
- 44 Benedikt Kratz (UvT) *A Model and Language for Business-aware Transactions*
- 45 Simon Carter (UvA) *Exploration and Exploitation of Multilingual Data for Statistical Machine Translation*
- 46 Manos Tsagkias (UvA) *Mining Social Media: Tracking Content and Predicting Behavior*
- 47 Jorn Bakker (TUE) *Handling Abrupt Changes in Evolving Time-series Data*
- 48 Michael Kaisers (UM) *Learning against Learning: Evolutionary dynamics of reinforcement learning algorithms in strategic interactions*
- 49 Steven van Kervel (TUD) *Ontology driven Enterprise Information Systems Engineering*

- 50 Jeroen de Jong (TUD) *Heuristics in Dynamic Scheduling: a practical framework with a case study in elevator dispatching*

## 2013

- 1 Viorel Milea (EUR) *News Analytics for Financial Decision Support*
- 2 Erietta Liarou (CWI) *MonetDB/DataCell: Leveraging the Column-store Database Technology for Efficient and Scalable Stream Processing*
- 3 Szymon Klarman (VUA) *Reasoning with Contexts in Description Logics*
- 4 Chetan Yadati (TUD) *Coordinating autonomous planning and scheduling*
- 5 Dulce Pumareja (UT) *Groupware Requirements Evolutions Patterns*
- 6 Romulo Goncalves (CWI) *The Data Cyclotron: Juggling Data and Queries for a Data Warehouse Audience*
- 7 Giel van Lankveld (UvT) *Quantifying Individual Player Differences*
- 8 Robbert-Jan Merk (VUA) *Making enemies: cognitive modeling for opponent agents in fighter pilot simulators*
- 9 Fabio Gori (RUN) *Metagenomic Data Analysis: Computational Methods and Applications*
- 10 Jeewanie Jayasinghe Arachchige (UvT) *A Unified Modeling Framework for Service Design*
- 11 Evangelos Pournaras (TUD) *Multi-level Reconfigurable Self-organization in Overlay Services*
- 12 Marian Razavian (VUA) *Knowledge-driven Migration to Services*
- 13 Mohammad Safiri (UT) *Service Tailoring: User-centric creation of integrated IT-based homecare services to support independent living of elderly*
- 14 Jafar Tanha (UvA) *Ensemble Approaches to Semi-Supervised Learning*
- 15 Daniel Hennes (UM) *Multiagent Learning: Dynamic Games and Applications*
- 16 Eric Kok (UU) *Exploring the practical benefits of argumentation in multi-agent deliberation*
- 17 Koen Kok (VUA) *The PowerMatcher: Smart Coordination for the Smart Electricity Grid*
- 18 Jeroen Janssens (UvT) *Outlier Selection and One-Class Classification*
- 19 Renze Steenhuizen (TUD) *Coordinated Multi-Agent Planning and Scheduling*
- 20 Katja Hofmann (UvA) *Fast and Reliable Online Learning to Rank for Information Retrieval*
- 21 Sander Wubben (UvT) *Text-to-text generation by monolingual machine translation*
- 22 Tom Claassen (RUN) *Causal Discovery and Logic*
- 23 Patricio de Alencar Silva (UvT) *Value Activity Monitoring*
- 24 Haitham Bou Ammar (UM) *Automated Transfer in Reinforcement Learning*
- 25 Agnieszka Anna Latoszek-Berendsen (UM) *Intention-based Decision Support. A new way of representing and implementing clinical guidelines in a Decision Support System*
- 26 Alireza Zarghami (UT) *Architectural Support for Dynamic Homecare Service Provisioning*
- 27 Mohammad Huq (UT) *Inference-based Framework Managing Data Provenance*
- 28 Frans van der Sluis (UT) *When Complexity becomes Interesting: An Inquiry into the Information eXperience*
- 29 Iwan de Kok (UT) *Listening Heads*
- 30 Joyce Nakatumba (TUE) *Resource-Aware Business Process Management: Analysis and Support*
- 31 Dinh Khoa Nguyen (UvT) *Blueprint Model and Language for Engineering Cloud Applications*
- 32 Kamakshi Rajagopal (OUN) *Networking For Learning: The role of Networking in a Lifelong Learner's Professional Development*
- 33 Qi Gao (TUD) *User Modeling and Personalization in the Microblogging Sphere*
- 34 Kien Tjin-Kam-Jet (UT) *Distributed Deep Web Search*
- 35 Abdallah El Ali (UvA) *Minimal Mobile Human Computer Interaction*
- 36 Than Lam Hoang (TUE) *Pattern Mining in Data Streams*
- 37 Dirk Börner (OUN) *Ambient Learning Displays*
- 38 Eelco den Heijer (VUA) *Autonomous Evolutionary Art*
- 39 Joop de Jong (TUD) *A Method for Enterprise Ontology based Design of Enterprise Information Systems*
- 40 Pim Nijssen (UM) *Monte-Carlo Tree Search for Multi-Player Games*
- 41 Jochem Liem (UvA) *Supporting the Conceptual Modelling of Dynamic Systems: A Knowledge Engineering Perspective on Qualitative Reasoning*
- 42 Léon Planken (TUD) *Algorithms for Simple Temporal Reasoning*
- 43 Marc Bron (UvA) *Exploration and Contextualization through Interaction and Concepts*

## 2014

- 1 Nicola Barile (UU) *Studies in Learning Monotone Models from Data*
- 2 Fiona Tulyano (RUN) *Combining System Dynamics with a Domain Modeling Method*
- 3 Sergio Raul Duarte Torres (UT) *Information Retrieval for Children: Search Behavior and Solutions*
- 4 Hanna Jochmann-Mannak (UT) *Websites for children: search strategies and interface design - Three studies on children's search performance and evaluation*
- 5 Jurriaan van Reijssen (UU) *Knowledge Perspectives on Advancing Dynamic Capability*
- 6 Damian Tamburri (VUA) *Supporting Networked Software Development*
- 7 Arya Adriansyah (TUE) *Aligning Observed and Modeled Behavior*
- 8 Samur Araujo (TUD) *Data Integration over Distributed and Heterogeneous Data Endpoints*
- 9 Philip Jackson (UvT) *Toward Human-Level Artificial Intelligence: Representation and Computation of Meaning in Natural Language*
- 10 Ivan Salvador Razo Zapata (VUA) *Service Value Networks*
- 11 Janneke van der Zwaan (TUD) *An Empathic Virtual Buddy for Social Support*
- 12 Willem van Willigen (VUA) *Look Ma, No Hands: Aspects of Autonomous Vehicle Control*
- 13 Arlette van Wissen (VUA) *Agent-Based Support for Behavior Change: Models and Applications in Health and Safety Domains*
- 14 Yangyang Shi (TUD) *Language Models With Meta-information*

- 15 Natalya Mogles (VUA) *Agent-Based Analysis and Support of Human Functioning in Complex Socio-Technical Systems: Applications in Safety and Healthcare*
  - 16 Krystyna Milian (VUA) *Supporting trial recruitment and design by automatically interpreting eligibility criteria*
  - 17 Kathrin Dentler (VUA) *Computing healthcare quality indicators automatically: Secondary Use of Patient Data and Semantic Interoperability*
  - 18 Mattijs Ghijsen (UvA) *Methods and Models for the Design and Study of Dynamic Agent Organizations*
  - 19 Vinicius Ramos (TUE) *Adaptive Hypermedia Courses: Qualitative and Quantitative Evaluation and Tool Support*
  - 20 Mena Habib (UT) *Named Entity Extraction and Disambiguation for Informal Text: The Missing Link*
  - 21 Cassidy Clark (TUD) *Negotiation and Monitoring in Open Environments*
  - 22 Marieke Peeters (UU) *Personalized Educational Games: Developing agent-supported scenario-based training*
  - 23 Eleftherios Sidirourgos (UvA/CWI) *Space Efficient Indexes for the Big Data Era*
  - 24 Davide Ceolin (VUA) *Trusting Semi-structured Web Data*
  - 25 Martijn Lappenschaar (RUN) *New network models for the analysis of disease interaction*
  - 26 Tim Baarslag (TUD) *What to Bid and When to Stop*
  - 27 Rui Jorge Almeida (EUR) *Conditional Density Models Integrating Fuzzy and Probabilistic Representations of Uncertainty*
  - 28 Anna Chmielowiec (VUA) *Decentralized k-Clique Matching*
  - 29 Jaap Kabbedijk (UU) *Variability in Multi-Tenant Enterprise Software*
  - 30 Peter de Cock (UvT) *Anticipating Criminal Behaviour*
  - 31 Leo van Moergestel (UU) *Agent Technology in Agile Multiparallel Manufacturing and Product Support*
  - 32 Naser Ayat (UvA) *On Entity Resolution in Probabilistic Data*
  - 33 Tesfa Tegegne (RUN) *Service Discovery in eHealth*
  - 34 Christina Manteli (VUA) *The Effect of Governance in Global Software Development: Analyzing Transactive Memory Systems*
  - 35 Joost van Ooijen (UU) *Cognitive Agents in Virtual Worlds: A Middleware Design Approach*
  - 36 Joos Buijs (TUE) *Flexible Evolutionary Algorithms for Mining Structured Process Models*
  - 37 Maral Dadvar (UT) *Experts and Machines United Against Cyberbullying*
  - 38 Danny Plass-Oude Bos (UT) *Making brain-computer interfaces better: improving usability through post-processing*
  - 39 Jasmina Maric (UvT) *Web Communities, Immigration, and Social Capital*
  - 40 Walter Omona (RUN) *A Framework for Knowledge Management Using ICT in Higher Education*
  - 41 Frederic Hogenboom (EUR) *Automated Detection of Financial Events in News Text*
  - 42 Carsten Eijckhof (CWI/TUD) *Contextual Multidimensional Relevance Models*
  - 43 Kevin Vlaanderen (UU) *Supporting Process Improvement using Method Increments*
  - 44 Paulien Meesters (UvT) *Intelligent Blauw: Intelligence-gestuurde politiezorg in gebiedsgebonden eenheden*
  - 45 Birgit Schmitz (OUN) *Mobile Games for Learning: A Pattern-Based Approach*
  - 46 Ke Tao (TUD) *Social Web Data Analytics: Relevance, Redundancy, Diversity*
  - 47 Shangsong Liang (UvA) *Fusion and Diversification in Information Retrieval*
- 2015**
- 1 Niels Netten (UvA) *Machine Learning for Relevance of Information in Crisis Response*
  - 2 Faiza Bukhsh (UvT) *Smart auditing: Innovative Compliance Checking in Customs Controls*
  - 3 Twan van Laarhoven (RUN) *Machine learning for network data*
  - 4 Howard Spoelstra (OUN) *Collaborations in Open Learning Environments*
  - 5 Christoph Bösch (UT) *Cryptographically Enforced Search Pattern Hiding*
  - 6 Farideh Heidari (TUD) *Business Process Quality Computation: Computing Non-Functional Requirements to Improve Business Processes*
  - 7 Maria-Hendrike Peetz (UvA) *Time-Aware Online Reputation Analysis*
  - 8 Jie Jiang (TUD) *Organizational Compliance: An agent-based model for designing and evaluating organizational interactions*
  - 9 Randy Klaassen (UT) *HCI Perspectives on Behavior Change Support Systems*
  - 10 Henry Hermans (OUN) *OpenU: design of an integrated system to support lifelong learning*
  - 11 Yongming Luo (TUE) *Designing algorithms for big graph datasets: A study of computing bisimulation and joins*
  - 12 Julie M. Birkholz (VUA) *Modi Operandi of Social Network Dynamics: The Effect of Context on Scientific Collaboration Networks*
  - 13 Giuseppe Procaccianti (VUA) *Energy-Efficient Software*
  - 14 Bart van Straalen (UT) *A cognitive approach to modeling bad news conversations*
  - 15 Klaas Andries de Graaf (VUA) *Ontology-based Software Architecture Documentation*
  - 16 Changyun Wei (UT) *Cognitive Coordination for Cooperative Multi-Robot Teamwork*
  - 17 André van Cleeff (UT) *Physical and Digital Security Mechanisms: Properties, Combinations and Trade-offs*
  - 18 Holger Pirk (CWI) *Waste Not, Want Not!: Managing Relational Data in Asymmetric Memories*
  - 19 Bernardo Tabuenca (OUN) *Ubiquitous Technology for Lifelong Learners*
  - 20 Loïs Vanhée (UU) *Using Culture and Values to Support Flexible Coordination*
  - 21 Sibren Fetter (OUN) *Using Peer-Support to Expand and Stabilize Online Learning*
  - 22 Zhemin Zhu (UT) *Co-occurrence Rate Networks*
  - 23 Luit Gazendam (VUA) *Cataloguer Support in Cultural Heritage*
  - 24 Richard Berendsen (UvA) *Finding People, Papers, and Posts: Vertical Search Algorithms and Evaluation*
  - 25 Steven Woudenbergh (UU) *Bayesian Tools for Early Disease Detection*



- 26 Alexander Hogenboom (EUR) *Sentiment Analysis of Text Guided by Semantics and Structure*
- 27 Sándor Héman (CWI) *Updating compressed column-stores*
- 28 Janet Bagorogoza (TiU) *Knowledge Management and High Performance: The Uganda Financial Institutions Model for HPO*
- 29 Hendrik Baier (UM) *Monte-Carlo Tree Search Enhancements for One-Player and Two-Player Domains*
- 30 Kiavash Bahreini (OUN) *Real-time Multimodal Emotion Recognition in E-Learning*
- 31 Yakup Koç (TUD) *On Robustness of Power Grids*
- 32 Jerome Gard (UL) *Corporate Venture Management in SMEs*
- 33 Frederik Schadd (UM) *Ontology Mapping with Auxiliary Resources*
- 34 Victor de Graaff (UT) *Geosocial Recommender Systems*
- 35 Junchao Xu (TUD) *Affective Body Language of Humanoid Robots: Perception and Effects in Human Robot Interaction*
- 2016**
- 1 Syed Saiden Abbas (RUN) *Recognition of Shapes by Humans and Machines*
- 2 Michiel Christiaan Meulendijk (UU) *Optimizing medication reviews through decision support: prescribing a better pill to swallow*
- 3 Maya Sappelli (RUN) *Knowledge Work in Context: User Centered Knowledge Worker Support*
- 4 Laurens Rietveld (VUA) *Publishing and Consuming Linked Data*
- 5 Evgeny Sherkhonov (UvA) *Expanded Acyclic Queries: Containment and an Application in Explaining Missing Answers*
- 6 Michel Wilson (TUD) *Robust scheduling in an uncertain environment*
- 7 Jeroen de Man (VUA) *Measuring and modeling negative emotions for virtual training*
- 8 Matje van de Camp (TiU) *A Link to the Past: Constructing Historical Social Networks from Unstructured Data*
- 9 Archana Nottamkandath (VUA) *Trusting Crowdsourced Information on Cultural Artefacts*
- 10 George Karafotias (VUA) *Parameter Control for Evolutionary Algorithms*
- 11 Anne Schuth (UvA) *Search Engines that Learn from Their Users*
- 12 Max Knobbout (UU) *Logics for Modelling and Verifying Normative Multi-Agent Systems*
- 13 Nana Baah Gyan (VU) *The Web, Speech Technologies and Rural Development in West Africa: An ICT4D Approach*
- 14 Ravi Khadka (UU) *Revisiting Legacy Software System Modernization*
- 15 Steffen Michels (RUN) *Hybrid Probabilistic Logics: Theoretical Aspects, Algorithms and Experiments*
- 16 Guangliang Li (UvA) *Socially Intelligent Autonomous Agents that Learn from Human Reward*
- 17 Berend Weel (VUA) *Towards Embodied Evolution of Robot Organisms*
- 18 Albert Meroño Peñuela (VUA) *Refining Statistical Data on the Web*
- 19 Julia Efreмова (TUE) *Mining Social Structures from Genealogical Data*
- 20 Daan Odijk (UvA) *Context & Semantics in News & Web Search*
- 21 Alejandro Moreno Céleri (UT) *From Traditional to Interactive Playspaces: Automatic Analysis of Player Behavior in the Interactive Tag Playground*
- 22 Grace Lewis (VU) *Software Architecture Strategies for Cyber-Foraging Systems*
- 23 Fei Cai (UvA) *Query Auto Completion in Information Retrieval*
- 24 Brend Wanders (UT) *Repurposing and Probabilistic Integration of Data; An Iterative and data model independent approach*
- 25 Julia Kiseleva (TUE) *Using Contextual Information to Understand Searching and Browsing Behavior*
- 26 Dilhan Thilakarathne (VU) *In or Out of Control: Exploring Computational Models to Study the Role of Human Awareness and Control in Behavioural Choices, with Applications in Aviation and Energy Management Domains*
- 27 Wen Li (TUD) *Understanding Geo-spatial Information on Social Media*
- 28 Mingxin Zhang (TUD) *Large-scale Agent-based Social Simulation - A study on epidemic prediction and control*
- 29 Nicolas Höning (CWI/TUD) *Peak reduction in decentralised electricity systems - Markets and prices for flexible planning*
- 30 Ruud Mattheij (UvT) *The Eyes Have It*
- 31 Mohammadreza Khelghati (UT) *Deep web content monitoring*
- 32 Eelco Vriezekolk (UT) *Assessing Telecommunication Service Availability Risks for Crisis Organisations*
- 33 Peter Bloem (UvA) *Single Sample Statistics, exercises in learning from just one example*
- 34 Dennis Schunselaar (TUE) *Configurable Process Trees: Elicitation, Analysis, and Enactment*
- 35 Zhaochun Ren (UvA) *Monitoring Social Media: Summarization, Classification and Recommendation*
- 36 Daphne Karreman (UT) *Beyond R2D2: The design of nonverbal interaction behavior optimized for robot-specific morphologies*
- 37 Giovanni Sileno (UvA) *Aligning Law and Action: a conceptual and computational inquiry*
- 38 Andrea Minuto (UT) *MATERIALS THAT MATTER: Smart Materials meet Art & Interaction Design*
- 39 Merijn Bruijnes (UT) *Believable Suspect Agents: Response and Interpersonal Style Selection for an Artificial Suspect*
- 40 Christian Detweiler (TUD) *Accounting for Values in Design*
- 41 Thomas King (TUD) *Governing Governance: A Formal Framework for Analysing Institutional Design and Enactment Governance*
- 42 Spyros Martzoukos (UvA) *Combinatorial and Compositional Aspects of Bilingual Aligned Corpora*
- 43 Saskia Koldijk (RUN) *Context-Aware Support for Stress Self-Management: From Theory to Practice*
- 44 Thibault Sellam (UvA) *Automatic Assistants for Database Exploration*
- 45 Bram van de Laar (UT) *Experiencing Brain-Computer Interface Control*
- 46 Jorge Gallego Perez (UT) *Robots to Make you Happy*
- 47 Christina Weber (UL) *Real-time foresight: Preparedness for dynamic innovation networks*

- 48 Tanja Buttler (TUD) *Collecting Lessons Learned*
- 49 Gleb Polevoy (TUD) *Participation and Interaction in Projects. A Game-Theoretic Analysis*
- 50 Yan Wang (UVT) *The Bridge of Dreams: Towards a Method for Operational Performance Alignment in IT-enabled Service Supply Chains*
- 2017**
- 1 Jan-Jaap Oerlemans (UL) *Investigating Cybercrime*
- 2 Sjoerd Timmer (UU) *Designing and Understanding Forensic Bayesian Networks using Argumentation*
- 3 Daniël Harold Telgen (UU) *Grid Manufacturing: A Cyber-Physical Approach with Autonomous Products and Reconfigurable Manufacturing Machines*
- 4 Mrunal Gawade (CWI) *Multi-core Parallelism in a Column-store*
- 5 Mahdieh Shadi (UvA) *Collaboration Behavior*
- 6 Damir Vandic (EUR) *Intelligent Information Systems for Web Product Search*
- 7 Roel Bertens (UU) *Insight in Information: from Abstract to Anomaly*
- 8 Rob Konijn (VUA) *Detecting Interesting Differences: Data Mining in Health Insurance Data using Outlier Detection and Subgroup Discovery*
- 9 Dong Nguyen (UT) *Text as Social and Cultural Data: A Computational Perspective on Variation in Text*
- 10 Robby van Delden (UT) *(Steering) Interactive Play Behavior*
- 11 Florian Kunneman (RUN) *Modelling patterns of time and emotion in Twitter #anticipointment*
- 12 Sander Leemans (UT) *Robust Process Mining with Guarantees*
- 13 Gijs Huisman (UT) *Social Touch Technology: Extending the reach of social touch through haptic technology*
- 14 Shoshannah Tekofsky (UvT) *You Are Who You Play You Are: Modelling Player Traits from Video Game Behavior*
- 15 Peter Berck (RUN) *Memory-Based Text Correction*
- 16 Aleksandr Chuklin (UvA) *Understanding and Modeling Users of Modern Search Engines*
- 17 Daniel Dimov (UL) *Crowdsourced Online Dispute Resolution*
- 18 Ridho Reinanda (UVA) *Entity Associations for Search*
- 19 Jeroen Vuurens (TUD) *Proximity of Terms, Texts and Semantic Vectors in Information Retrieval*
- 20 Mohammadbashir Sedighi (TUD) *Fostering Engagement in Knowledge Sharing: The Role of Perceived Benefits, Costs and Visibility*
- 21 Jeroen Linssen (UT) *Meta Matters in Interactive Storytelling and Serious Gaming: A Play on Worlds*
- 22 Sara Magliacane (VU) *Logics for causal inference under uncertainty*
- 23 David Graus (UVA) *Entities of Interest—Discovery in Digital Traces*
- 24 Chang Wang (TUD) *Use of Affordances for Efficient Robot Learning*
- 25 Veruska Zamborlini (VU) *Knowledge Representation for Clinical Guidelines, with applications to Multimorbidity Analysis and Literature Search*
- 26 Merel Jung (UT) *Socially intelligent robots that understand and respond to human touch*
- 27 Michiel Joose (UT) *Investigating Positioning and Gaze Behaviors of Social Robots: People's Preferences, Perceptions and Behaviors*
- 28 John Klein (VU) *Architecture Practices for Complex Contexts*
- 29 Adel Alhuraibi (UVT) *From IT-Business Strategic Alignment to Performance: A Moderated Mediation Model of Social Innovation, and Enterprise Governance of IT*
- 30 Wilma Latuny (UVT) *The Power of Facial Expressions*
- 31 Ben Ruijl (UL) *Advances in computational methods for QFT calculations*
- 32 Thaeer Samar (RUN) *Access to and Retrieval of Content in Web Archives*
- 33 Brigit van Loggem (OU) *Towards a Design Rationale for Software Documentation: A Model of Computer-Mediated Activity*
- 34 Maren Scheffel (OUN) *The Evaluation Framework for Learning Analytics*
- 35 Martine de Vos (VU) *Interpreting natural science spreadsheets*
- 36 Yuanhao Guo (UL) *Shape Analysis for Phenotype Characterisation from High-throughput Imaging*
- 37 Alejandro Montes Garcia (TUE) *WiBAF: A Within Browser Adaptation Framework that Enables Control over Privacy*
- 38 Alex Kayal (TUD) *Normative Social Applications*
- 39 Sara Ahmadi (RUN) *Exploiting properties of the human auditory system and compressive sensing methods to increase noise robustness in ASR*
- 40 Altaf Hussain Abro (VUA) *Steer your Mind: Computational Exploration of Human Control in Relation to Emotions, Desires and Social Support For applications in human-aware support systems"*
- 41 Adnan Manzoor (VUA) *Minding a Healthy Lifestyle: An Exploration of Mental Processes and a Smart Environment to Provide Support for a Healthy Lifestyle*
- 42 Elena Sokolova (RUN) *Causal discovery from mixed and missing data with applications on ADHD datasets*
- 43 Maaïke de Boer (RUN) *Semantic Mapping in Video Retrieval*
- 44 Garm Lucassen (UU) *Understanding User Stories - Computational Linguistics in Agile Requirements Engineering*
- 45 Bas Testerink (UU) *Decentralized Runtime Norm Enforcement*
- 46 Jan Schneider (OU) *Sensor-based Learning Support*
- 47 Yie Yang (TUD) *Crowd Knowledge Creation Acceleration*
- 48 Angel Suarez (OU) *Collaborative inquiry-based learning*
- 2018**
- 1 Han van der Aa (VUA) *Comparing and Aligning Process Representations*
- 2 Felix Mannhardt (TUE) *Multi-perspective Process Mining*
- 3 Steven Bosems (UT) *Causal Models For Well-Being: Knowledge Modeling, Model-Driven Development of Context-Aware Applications, and Behavior Prediction*
- 4 Jordan Janeiro (TUD) *Flexible Coordination Support for Diagnosis Teams in Data-Centric Engineering Tasks*
- 5 Hugo Hurdeman (UVA) *Supporting the Complex Dynamics of the Information Seeking Process*
- 6 Dan Ionita (UT) *Model-Driven Information Security Risk Assessment of Socio-Technical Systems*
- 7 Jieting Luo (UU) *A formal account of opportunism in multi-agent systems*

- 8 Rick Smetsers (RUN) *Advances in Model Learning for Software Systems*
- 9 Xu Xie (TUD) *Data Assimilation in Discrete Event Simulations*
- 10 Julienka Mollee (VUA) *Moving forward: supporting physical activity behavior change through intelligent technology*
- 11 Mahdi Sargolzaei (UVA) *Enabling Framework for Service-oriented Collaborative Networks*
- 12 Xixi Lu (TUE) *Using behavioral context in process mining*
- 13 Seyed Amin Tabatabaei (VUA) *Using behavioral context in process mining: Exploring the added value of computational models for increasing the use of renewable energy in the residential sector*
- 14 Bart Joosten (UVT) *Detecting Social Signals with Spatiotemporal Gabor Filters*
- 15 Naser Davarzani (UM) *Biomarker discovery in heart failure*
- 16 Jaebok Kim (UT) *Automatic recognition of engagement and emotion in a group of children*
- 17 Jianpeng Zhang (TUE) *On Graph Sample Clustering*
- 18 Henriette Nakad (UL) *De Notaris en Private Rechtspraak*
- 19 Minh Duc Pham (VUA) *Emergent relational schemas for RDF*
- 20 Manxia Liu (RUN) *Time and Bayesian Networks*
- 21 Aad Slootmaker (OUN) *EMERGO: a generic platform for authoring and playing scenario-based serious games*
- 22 Eric Fernandes de Mello Araujo (VUA) *Contagious: Modeling the Spread of Behaviours, Perceptions and Emotions in Social Networks*
- 23 Kim Schouten (EUR) *Semantics-driven Aspect-Based Sentiment Analysis*
- 24 Jered Vroon (UT) *Responsive Social Positioning Behaviour for Semi-Autonomous Telepresence Robots*
- 25 Riste Gligorov (VUA) *Serious Games in Audio-Visual Collections*
- 26 Roelof Anne Jelle de Vries (UT) *Theory-Based and Tailor-Made: Motivational Messages for Behavior Change Technology*
- 27 Maikel Leemans (TUE) *Hierarchical Process Mining for Scalable Software Analysis*
- 28 Christian Willemse (UT) *Social Touch Technologies: How they feel and how they make you feel*
- 29 Yu Gu (UVT) *Emotion Recognition from Mandarin Speech*
- 30 Wouter Beek (VU) *The "K" in "semantic web" stands for "knowledge": scaling semantics to the web*
- 3 Eduardo Gonzalez Lopez de Murillas (TUE) *Process Mining on Databases: Extracting Event Data from Real Life Data Sources*
- 4 Ridho Rahmadi (RUN) *Finding stable causal structures from clinical data*
- 5 Sebastiaan van Zelst (TUE) *Process Mining with Streaming Data*
- 6 Chris Dijkshoorn (VU) *Nichesourcing for Improving Access to Linked Cultural Heritage Datasets*
- 7 Soude Fazeli (TUD)
- 8 Frits de Nijs (TUD) *Resource-constrained Multi-agent Markov Decision Processes*
- 9 Fahimeh Alizadeh Moghaddam (UVA) *Self-adaptation for energy efficiency in software systems*
- 10 Qing Chuan Ye (EUR) *Multi-objective Optimization Methods for Allocation and Prediction*
- 11 Yue Zhao (TUD) *Learning Analytics Technology to Understand Learner Behavioral Engagement in MOOCs*
- 12 Jacqueline Heinerman (VU) *Better Together*
- 13 Guanliang Chen (TUD) *MOOC Analytics: Learner Modeling and Content Generation*
- 14 Daniel Davis (TUD) *Large-Scale Learning Analytics: Modeling Learner Behavior & Improving Learning Outcomes in Massive Open Online Courses*
- 15 Erwin Walraven (TUD) *Planning under Uncertainty in Constrained and Partially Observable Environments*
- 16 Guangming Li (TUE) *Process Mining based on Object-Centric Behavioral Constraint (OCBC) Models*
- 17 Ali Hurriyetoglu (RUN) *Extracting actionable information from microtexts*
- 18 Gerard Wagenaar (UU) *Artefacts in Agile Team Communication*
- 19 Vincent Koeman (TUD) *Tools for Developing Cognitive Agents*
- 20 Chide Groenouwe (UU) *Fostering technically augmented human collective intelligence*
- 21 Cong Liu (TUE) *Software Data Analytics: Architectural Model Discovery and Design Pattern Detection*
- 22 Martin van den Berg (VU) *Improving IT Decisions with Enterprise Architecture*
- 23 Qin Liu (TUD) *Intelligent Control Systems: Learning, Interpreting, Verification*
- 24 Anca Dimitrache (VU) *Truth in Disagreement - Crowdsourcing Labeled Data for Natural Language Processing*
- 25 Emiel van Miltenburg (VU) *Pragmatic factors in (automatic) image description*
- 26 Prince Mayurank Singh (UT) *An Integration Platform for Synchronodal Transport*
- 27 Alessandra Antonaci (OUNL) *The Gamification Design Process applied to (Massive) Open Online Courses*
- 28 Esther Kuindersma (UL) *Cleared for take-off: Game-based learning to prepare airline pilots for critical situations*

## 2019

- 1 Rob van Eijk (UL) *Comparing and Aligning Process Representations*
- 2 Emmanuelle Beauxis Aussalet (CWI, UU) *Statistics and Visualizations for Assessing Class Size Uncertainty*



