Collaboration behavior enhancement in co-development networks
Shadi, M.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.


Bibliography


BIBLIOGRAPHY


Organisaties komen steeds vaker veranderingen en uitdagende situaties tegen waar ze geen invloed op hebben, en individueel lukt het ze niet om businesskansen in de markt te benutten. Daarom verschuiven de traditionele organisatiestructuren langzaam naar samenwerkingsnetwerken van organisaties (Engels: collaborative networks of organizations), waaronder Virtuele Organisaties (VO). VOs zijn voor korte termijn en doelgericht. VOs moeten op dynamische en vloeiende wijze opgericht en gevestigd kunnen worden, om in te spelen op een ontstane kans in de markt en te concurreren met grote organisaties. Het bestaan van een strategische alliantie van organisaties in een sector, die de noodzakelijke basiscondities en -mechanismen verzorgt, is een bewezen voorwaarde voor het faciliteren van dynamische creatie en succesvolle werking van VOs. Dergelijke langetermijnsamenwerkingsnetwerken, ook wel VO Breeding Environments (VBE) genoemd, zijn al in veel industriële sectoren zichtbaar.

Geanalyseerde gegevens verzameld bij samenwerkende organisaties in VOs tonen aan dat het meeste VO-falen veroorzaakt worden door gedrag van organisaties. Hieruit volgt dat naast het begrijpen en ontwerpen van welgegronde modellen voor gedrag van organisaties, er mechanismen nodig zijn om gedrag te monitoren en controle over gedrag uit te oefenen. Als een hoofdcontributie van dit proefschrift berekent onze VO Supervisory Assisting Tool (VOSAT) twee metrieken voor elke partnerorganisatie in een VBE: het historisch samenwerkingsgedrag van de partner, hoofdzakelijk berekend op basis van langetermijngedrag dat is gemonitord tijdens voorgaande VOs, en het huidig samenwerkingsgedrag van de partner, berekend op basis van gedrag ten opzichte van de vastgelegde normen in de actuele VO.

Om het historisch gedrag van een organisatie in een VBE te meten worden vier kwalitatieve gedragsdimensies meegenomen: de organisaties integriteit (Engels: integrity), moed (Engels: courage), aangenaamheid (Engels: agreeableness), en openheid (Engels: openness). Elk van deze kwaliteiten wordt gemodelleerd met een verzameling kenmerken (Engels: traits). Een kwantitatieve oorzakelijke be-
nadering is vervolgens gedefinieerd om een aantal bekende omgevingsfactoren te relateren aan de kenmerken van deze vier gedragsdimensies. Uit de oorzakelijke verbanden zijn een aantal formules afgeleid, die voor elke organisatie de mate van individueel samenwerkingsgedrag (Engels: Individual Collaborative Behavior, ICB) berekenen. In onze aanpak vormt deze metriek een maatstaf in de evaluatie van de samenwerkingsbetrouwbaarheid (Engels: collaborative trustworthiness) van elke partnerorganisatie, welke nodig is tijdens de VO operation phase.

Om de kwaliteit van het huidige gedrag van een partner in een VO te behandelen, stellen we een nieuw normatief multiagentmodel voor VOs voor, waarin vier soorten gedragsnormen worden onderscheiden: (i) socio-regulatory normen, (ii) co-working normen, (iii) committing normen, en (iv) controlling normen. Ons model heet daarom het S3C model voor de behandeling van normen. Onze aanpak voor committing normen en co-working normen leidt tot de introductie van nieuwe formalisaties en mechanismen, gebaseerd op individuele en gezamenlijke beloften tussen VO-partners. Dus, VO-partners leggen zich toe op het uitvoeren van taken op een bottom-up manier, in tegenstelling tot een VO-cordinator die taken toekent aan partners op een top-down manier. De bottom-up aanpak past veel beter bij de samenwerkingsaard van VOs, vergelijkbaar met federatieve partnerschappen tussen organisaties. Daarnaast wordt het vertrouwensniveau (Engels: trust level) van elke partner berekend op basis van de resultaten van het monitoren van socio-regulatory normen, co-working normen, en committing normen, alsmede de partners ICB. Dit wordt gedaan door middel van de AHP-fuzzy comprehensive evaluation method. De controlling normen passen drie metrieken toe gericht op het karakteriseren van VO-partners, namelijk hun vertrouwensniveau, werkdruk, en communicatieniveau. Als een van de controlling normen wordt overtreden door een VO-partner, dan wordt dat door VOSAT herkend en waarschuwt VOSAT de VO-cordinator. Een dergelijke overtreding is een risico voor het bereiken van de VO-doelen. Met deze metrieken is een Bayesiaans netwerk gecreëerd om de kans op falen te meten voor elk van de geplande deeltaken, taken, deeldoelen, en het algemene doel van de VO.

Daarnaast geeft VOSAT suggesties ter ondersteuning van het maken van beslissingen omtrent mogelijke interventies in geplande taken, om VO-falen te voorkomen, samenwerking in VOs te bevorderen, en daardoor de succeskans van VOs enorm te verbeteren. Om een voorbeeld te geven, VOSAT kan een VO-cordinator ondersteunen tijdens de operation phase, door een suggestie te maken voor geschikte alternatieve partners onder hen die zich aanbieden om een riskante deeltaak over te nemen. Een tweede voorbeeld van hoe VOSAT de VO-cordinator tijdens de operation phase kan ondersteunen bij het verbeteren van samenwerkingsgedrag, en daarmee de succeskans van een VO te vergroten, is door het opnemen en rangschikken van de prestaties en het samenwerkingsgedrag van VO-partners, om op basis hiervan indirect beloningen te verdelen binnen de VO. Een derde voorbeeld van hoe VOSAT de taken van de VO-cordinator faciliteert, is bij de selectie van de meest geschikte partners tijdens de formatie/creatiefase van
een VO. In dit proefschrift staat een voorbeeld van dit geval voor de VOs in de services-industrie. In dit voorbeeld wordt gedemonstreerd hoe het historisch en huidig gedrag van kandidaatpartners hun mogelijke selectie voor deelname in een nieuwe VO kan benvenloeden. Dit proefschrift ontwerpt en ontwikkelt dus hulp-mechanismen, -tools, en -systemen ter ondersteuning van VO-cordinators, met een toename van zowel veerkracht als succeskans van VOs als resultaat.
I would like to extend my sincere gratitude and appreciation to my promoter Prof. Dr. Hamideh Afsarmanesh for her great support and guidance during my PhD study, and being a friend for me. Her patience, and immense knowledge make me confident for doing my research and writing of this thesis.

I would also like to express my special thanks to my co-promoter Dr. Mehdi Dastani for all his insightful advices and stimulating discussions during my study. His scientific personality and stress-free style of collaboration have been always inspiring to me.

I would like to convey my great appreciation to my committee members, Prof. Camarinha-Matos, Prof. Meyer, Prof. Bubak, Prof. van Engers, and Prof. Groen, for agreeing to be on my committee and critically reading my thesis. I would also thank Dr. Maarten M. van Someren for critical comments during the FCN meeting discussions and Erik Hitipeuw for all his support and caring to finalize this thesis.

I am thankful to Mahdi Jaghoori and Sung-Shik Jongmans for their invaluable help to write the Samenvatting section. My special thanks also goes to my colleagues and friends, Amirhossein, Fahimeh, Gerben, Hodjat, Jafar, Masoud, Mirriam, Mohammad, Naser, Sijali, and Jochem for all the fun we have had and for their help to shape and develop ideas in my research.

Words are powerless to express my heartfelt gratitude to my lovely parents Robabeh, and Gholamhossein. I am grateful to them for their unconditional love and support. They always encourage me to do my best.

My deepest thanks and appreciation goes to my beloved husband, Mahdi, for believing in me and for giving endless support in whatever I did.

I dedicate this thesis to my little angel, Sarina, for the joyful sense of life that she gives me.
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2OPL</td>
<td>Organization Oriented Programming Language</td>
</tr>
<tr>
<td>A</td>
<td>Availability</td>
</tr>
<tr>
<td>AG</td>
<td>Agreeableness</td>
</tr>
<tr>
<td>AHP</td>
<td>Analytic Hierarchy Process</td>
</tr>
<tr>
<td>ANP</td>
<td>Analytic Network Process</td>
</tr>
<tr>
<td>ARCON</td>
<td>A Reference model for Collaborative Networks</td>
</tr>
<tr>
<td>BDI</td>
<td>Beliefs, Desires and Intentions</td>
</tr>
<tr>
<td>BN</td>
<td>Bayesian Network</td>
</tr>
<tr>
<td>BS</td>
<td>Business Success</td>
</tr>
<tr>
<td>C3Q</td>
<td>Capability, Cost, Conspicuity, and the Quality specification criteria</td>
</tr>
<tr>
<td>CA</td>
<td>Creativity</td>
</tr>
<tr>
<td>CB</td>
<td>Current Responsibility</td>
</tr>
<tr>
<td>CCCI</td>
<td>Correlation, Commitment, Clarity, and Influence</td>
</tr>
<tr>
<td>CG</td>
<td>Courage</td>
</tr>
<tr>
<td>CI</td>
<td>Consistency Index</td>
</tr>
<tr>
<td>CM</td>
<td>Competence</td>
</tr>
<tr>
<td>CMR</td>
<td>Communication Rate</td>
</tr>
<tr>
<td>CN</td>
<td>Collaborative Network</td>
</tr>
<tr>
<td>CNOD</td>
<td>Committing Norms Obedience Degree</td>
</tr>
<tr>
<td>CO</td>
<td>Cooperativeness</td>
</tr>
<tr>
<td>CoQ</td>
<td>Co-work Quality</td>
</tr>
<tr>
<td>CP</td>
<td>Capability</td>
</tr>
<tr>
<td>CPS</td>
<td>Cooperative Problem Solving</td>
</tr>
<tr>
<td>CPT</td>
<td>Conditional Probability Tables</td>
</tr>
<tr>
<td>CR</td>
<td>Conflict Resolution</td>
</tr>
<tr>
<td>CT</td>
<td>Cooperative Traits</td>
</tr>
<tr>
<td>DAG</td>
<td>Directed Acyclic Graph</td>
</tr>
<tr>
<td>DoW</td>
<td>Description of Work</td>
</tr>
<tr>
<td>Endo-E</td>
<td>Endogenous Elements</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Definition</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>ES</td>
<td>Employee Size</td>
</tr>
<tr>
<td>ETA</td>
<td>Event Tree Analysis</td>
</tr>
<tr>
<td>Exo-I</td>
<td>Exogenous Interaction</td>
</tr>
<tr>
<td>FA</td>
<td>Fairness</td>
</tr>
<tr>
<td>FB</td>
<td>Failures in Behavior</td>
</tr>
<tr>
<td>FC</td>
<td>Others’ fault Compensation</td>
</tr>
<tr>
<td>FL</td>
<td>Flexibility</td>
</tr>
<tr>
<td>FQ</td>
<td>Fulfilment of QSC</td>
</tr>
<tr>
<td>FT</td>
<td>Flexibility Ability</td>
</tr>
<tr>
<td>FTA</td>
<td>Fault Tree Analysis</td>
</tr>
<tr>
<td>GTIT</td>
<td>Goal-Task-Interdependency-Template</td>
</tr>
<tr>
<td>GTM</td>
<td>Goal-oriented Trust Model</td>
</tr>
<tr>
<td>HCL</td>
<td>Hybrid Causal Logic</td>
</tr>
<tr>
<td>HMDT</td>
<td>Hierarchical Multi-attribute Decision-support-based Trust estimation</td>
</tr>
<tr>
<td>HN</td>
<td>Honesty</td>
</tr>
<tr>
<td>HW</td>
<td>Heavy Workload</td>
</tr>
<tr>
<td>ICB</td>
<td>Individual Collaborative Behavior</td>
</tr>
<tr>
<td>ICT</td>
<td>Information and Communication Technologies</td>
</tr>
<tr>
<td>II</td>
<td>Inventiveness</td>
</tr>
<tr>
<td>IN</td>
<td>Integrity</td>
</tr>
<tr>
<td>IQ</td>
<td>Influence of QSC</td>
</tr>
<tr>
<td>IR</td>
<td>Interaction Rate</td>
</tr>
<tr>
<td>IRN</td>
<td>Institutional Reality and Norms in VOs</td>
</tr>
<tr>
<td>IS</td>
<td>Intolerance to Stress</td>
</tr>
<tr>
<td>LA</td>
<td>Leadership Ability</td>
</tr>
<tr>
<td>LC</td>
<td>Lack of Communication</td>
</tr>
<tr>
<td>LT</td>
<td>Lack of Trust</td>
</tr>
<tr>
<td>MBTI</td>
<td>Myers-Briggs Type Indicator</td>
</tr>
<tr>
<td>NAC</td>
<td>Norm Abidance Component</td>
</tr>
<tr>
<td>NBO</td>
<td>Not Being Opportunistic</td>
</tr>
<tr>
<td>NF</td>
<td>Not Fulfilling</td>
</tr>
<tr>
<td>NMAS</td>
<td>Normative Multi-agent System</td>
</tr>
<tr>
<td>NMC</td>
<td>Norm Monitoring Component</td>
</tr>
<tr>
<td>NMR</td>
<td>Norm Manipulating Rules</td>
</tr>
<tr>
<td>OCI</td>
<td>Organizational Character Index</td>
</tr>
<tr>
<td>OE</td>
<td>Openness to new Experience</td>
</tr>
<tr>
<td>OLA</td>
<td>Operational Level Agreement</td>
</tr>
<tr>
<td>OWL</td>
<td>Web Ontology Language</td>
</tr>
<tr>
<td>PA</td>
<td>Problem Avoidance</td>
</tr>
<tr>
<td>PF</td>
<td>Promise Fulfilment</td>
</tr>
<tr>
<td>PI</td>
<td>Promise Importance</td>
</tr>
<tr>
<td>PN</td>
<td>Punctuality</td>
</tr>
</tbody>
</table>
Abbreviations

PO  Pro-activity
PR  Past Responsibilities
PRIT Partner-Responsibility-Interdependency-Tree
PSC Partner Selecting Component
PT  Pro-activity Ability
QF  Q-Factor
QoS Quality of Service
QSC Quality Specification Criterion
R  Reliability
RFC Ratio of Failure in Communication
RI  Random consistency Index
ROC Ratio of work Overload Commitment
RPC Risk Predicting Component
RR Reaction Rule
RT  Response Time
RS  Resource Size
S3C Socio-regulatory, Committing, Co-working and Controlling norms
SCM Supply Chain Management
SLA Service Level Agreements
SMEs Small and Medium Enterprises
SNOD Socio-regulatory norms obedience degree
SOA Service Oriented Architecture
SOAP Simple Object Access Protocol
SOC Service Oriented Computing
SP  Proactively Supportive
SRA Scientific Research on the Agriculture
T  Throughput
TEC Trust Evaluating Component
TOC Table Of Content
TR Truthfulness
TT Trustworthiness
VBE Virtual organizations Breeding Environment
VE Volunteering
VO Virtual Organization
VOSAT VO Supervisory Assisting Tool
WOL Work OverLoad
WP Work Package
WSDL Web Service Description Language
WSMO Web Service Modeling Ontology
2017-01 Jan-Jaap Oerlemans (UL), Investigating Cybercrime.
2017-02 Sjoerd Timmer (UU), Designing and Understanding Forensic Bayesian Networks using Argumentation.
2017-03 Danil Harold Telgen (UU), Grid Manufacturing: A Cyber-Physical Approach with Autonomous Products and Reconfigurable Manufacturing Machines.
2017-04 Mrunal Gawade (CWI), MULTI-CORE PARALLELISM IN A COLUMN-STORE.
2016-01 Syed Sained Abbas (RUN), Recognition of Shapes by Humans and Machines.
2016-02 Michiel Meulendijk (UU), Optimizing medication reviews through decision support: prescribing a better pill to swallow.
2016-03 Maya Sappelli (RUN), Knowledge Work in Context: User Centered Knowledge Worker Support.
2016-04 Laurens Rietveld (VU), Publishing and Consuming Linked Data.
2016-05 Evgeny Sherkhonov (UVA), Expanded Acyclic Queries: Containment and an Application in Explaining Missing Answers.
2016-06 Michel Wilson (TUD), Robust scheduling in an uncertain environment.
2016-07 Jeroen de Man (VU), Measuring and modeling negative emotions for virtual training.
2016-08 Matje van de Camp (TiU), A Link to the Past: Constructing Historical Social Networks from Unstructured Data.
2016-09 Archana Nottamkandath (VU), Trusting Crowdsourced Information on Cultural Artefacts.
2016-10 George Karafotias (VUA), Parameter Control for Evolutionary Algorithms.
2016-11 Anne Schuth (UVA), Search Engines that Learn from Their Users.
Study the Role of Human Awareness and Control in Behavioural Choices, with Applications in Aviation and Energy Management Domains.

2016-27 Wen Li (TUD), Understanding Geo-spatial Information on Social Media.

2016-28 Mingxin Zhang (TUD), Large-scale Agent-based Social Simulation - A study on epidemic prediction and control.

2016-29 Nicolas Hning (TUD), Peak reduction in decentralised electricity systems - Markets and prices for flexible planning.

2016-30 Rund Mattheij (UVT), The Eyes Have It.

2016-31 Mohammad Khelghati (UT), Deep web content monitoring.


2016-33 Peter Bloem (UVA), Single Sample Statistics, exercises in learning from just one example.

2016-34 Dennis Schunselaar (TUE), Title:

2016-35 Zhaochun Ren (UVA), Monitoring Social Media: Summarization, Classification and Recommendation.

2016-36 Daphne Karreman (UT), Beyond R2D2: The design of nonverbal interaction behavior optimized for robot-specific morphologies.

2016-37 Giovanni Sileno (UvA), Aligning Law and Action - a conceptual and computational inquiry.

2016-38 Andrea Minuto (UT), MATERIALS THAT MATTER - Smart Materials meet Art & Interaction Design.

2016-39 Merijn Brujinnes (UT), Believable Suspect Agents: Response and Interpersonal Style Selection for an Artificial Suspect.

2016-40 Christian Detweiler (TUD), Accounting for Values in Design.


2016-42 Spyros Martzoukos (UVA), Combinatorial and Compositional Aspects of Bilingual Aligned Corpora.


2016-44 Thibault Sellam (UVA), Automatic Assistants for Database Exploration.

2016-45 Bram van de Laar (UT), Experiencing Brain-Computer Interface Control.

2016-46 Jorge Gallego Perez (UT), Robots to Make you Happy.


2016-48 Tanja Buttler (TUD), Collecting Lessons Learned.


2016-50 Yan Wang (UVT), The Bridge of Dreams: Towards a Method for Operational Performance Alignment in IT-enabled Service Supply Chains.


2015-02 Faiza Bukhsh (UVT), Smart auditing: Innovative Compliance Checking in Customs Controls.

2015-03 Twan van Laarhoven (RUN), Machine learning for network data.

2015-04 Howard Spoelstra (OUN), Collaborations in Open Learning Environments.

2015-05 Christoph Bsch (UT), Cryptographically Enforced Search Pattern Hiding.


2015-07 Maria-Hendrike Peetz (UVA), Time-Aware Online Reputation Analysis.

2015-08 Jie Jiang (TUD), Organizational Compliance: An agent-based model for designing and evaluating organizational interactions.

2015-09 Randy Klaassen (UT), HCI Perspectives on Behavior Change Support Systems.

2015-10 Henry Hermans (OUN), OpenU: design of an integrated system to support lifelong learning.

2015-11 Yongming Luo (TUE), Designing algorithms for big graph datasets: A study of computing bisimulation and joins.

2015-12 Julie M. Birkholz (VU), Modi Operandi of Social Network Dynamics: The Effect of Context on Scientific Collaboration Networks.

2015-13 Giuseppe Procaccianti (VU), Energy-Efficient Software.

2015-14 Bart van Straalen (UT), A cognitive approach to modeling bad news conversations.


2015-16 Changyun Wei (UT), Cognitive Coordination for Cooperative Multi-Robot Teamwork.


2015-19 Bernardo Tabuenca (OUN), Waste Not, Want Not! - Managing Relational Data in Asymmetric MemoriesUbiquitous Technology for
Lifelong Learners.

2015-20 Los Vanhe (UU), Using Culture and Values to Support Flexible Coordination Using Culture and Values to Support Flexible Coordination.

2015-21 Sibren Fetter (OUN), Using Culture and Values to Support Flexible Coordination Using Peer-Support to Expand and Stabilize Online Learning.

2015-22 Zhemin Zhu (UT), Co-occurrence Rate Networks - Towards separate training for undirected graphical models.

2015-23 Luit Gazendam (VU), Using Culture and Values to Support Flexible Coordination Cataloguer Support in Cultural Heritage.


2015-25 Steven Woudenberg (UU), Bayesian Tools for Early Disease Detection.

2015-26 Alexander Hogenboom (EUR), Sentiment Analysis of Text Guided by Semantics and Structure.

2015-27 Sndor Hman (CWI), Updating compressed column stores.

2015-28 Janet Bagorogoza (EUR), Knowledge Management and High Performance; The Uganda Financial Institutions Model for HPO.

2015-29 Hendrik Baier (UM), Monte-Carlo Tree Search Enhancements for One-Player and Two-Player Domains.


2015-31 Yakup Ko (TUD), On the robustness of Power Grids.

2015-32 Jerome Gard (UL), Corporate Venture Management in SMEs.

2015-33 Frederik Schadd (UM), Ontology Mapping with Auxiliary Resources.

2015-34 Victor de Graaff (UT), Gesocial Recommender Systems.


2014-01 Nicola Barrile (UU), Studies in Learning Monotone Models from Data.

2014-02 Fiona Tuliyano (RUN), Combining System Dynamics with a Domain Modeling Method.

2014-03 Sergio Raul Duarte Torres (UT), Information Retrieval for Children: Search Behavior and Solutions.


2014-05 Jurriaan van Reijsen (UU), Knowledge Perspectives on Advancing Dynamic Capability.

2014-06 Damian Tamburri (VU), Supporting Networked Software Development.

2014-07 Arya Adriansyah (TUE), Aligning Observed and Modeled Behavior.

2014-08 Sumur Araujo (TUD), Data Integration over Distributed and Heterogeneous Data Endpoints.

2014-09 Philip Jackson (UVT), Toward Human-Level Artificial Intelligence: Representation and Computation of Meaning in Natural Language.

2014-10 Ivan Salvador Razo Zapata (VU), Service Value Networks.

2014-11 Janneke van der Zwaan (TUD), An Empathic Virtual Buddy for Social Support.

2014-12 Willem van Willigen (VU), Look Ma, No Hands: Aspects of Autonomous Vehicle Control.

2014-13 Arlette van Wissen (VU), Agent-Based Support for Behavior Change: Models and Applications in Health and Safety Domains.

2014-14 Yangyang Shi (TUD), Language Models With Meta-information.


2014-16 Krystyna Milian (VU), Supporting trial recruitment and design by automatically interpreting eligibility criteria.


2014-21 Kassidy Clark (TUD), Negotiation and Monitoring in Open Environments.

2014-22 Marieke Poeters (UU), Personalized Educational Games - Developing agent-supported scenario-based training.

2014-23 Eleftherios Sidirourgos (UVA/CWI), Space Efficient Indexes for the Big Data Era.


2014-25 Martijn Lappenschaar (RUN), New network models for the analysis of disease interaction.

2014-26 Tim Baarslag (TUD), What to Bid and When to Stop.

2014-28 Anna Chmielowiec (VU), Decentralized k-Clique Matching.

2014-29 Jaap Kabbedijk (UU), Variability in Multi-Tenant Enterprise Software.

2014-30 Peter de Cock (UV), Anticipating Criminal Behaviour.

2014-31 Leo van Moergestel (UU), Agent Technology in Agile Multiparallel Manufacturing and Product Support.


2014-33 Tesfa Tegegne (RUN), Service Discovery in eHealth.

2014-34 Christina Manteli(VU), The Effect of Governance in Global Software Development: Analyzing Transactive Memory Systems.


2014-37 Maral Dadvar (UT), Experts and Machines United Against Cyberbullying.

2014-38 Danny Plass-Oude Bos (UT), Making brain-computer interfaces better: improving usability through post-processing.


2014-43 Kevin Vlaanderen (UU), Supporting Process Improvement using Method Increments.


2014-45 Birgit Schmitz (OUN), Mobile Games for Learning: A Pattern-Based Approach.

2014-46 Ke Tao (TUD), Social Web Data Analytics: Relevance, Redundancy, Diversity.

2014-47 Shangsong Liang (UVA), Fusion and Diversification in Information Retrieval.


2013-02 Erietta Liarou (CWI), MonetDB/DataCell: Leveraging the Column-store Database Technology for Efficient and Scalable Stream Processing.

2013-03 Szymon Klarman (VU), Reasoning with Contexts in Description Logics.

2013-04 Chetan Yadati(TUD), Coordinating autonomous planning and scheduling.

2013-05 Dulce Pumareja (UT), Groupware Requirements Evolutions Patterns.

2013-06 Romulo Goncalves(CWI), The Data Cyclotron: Juggling Data and Queries for a Data Warehouse Audience.

2013-07 Giel van Lankveld (UV), Quantifying Individual Player Differences.

2013-08 Robbert-Jan Merk(VU), Making enemies: cognitive modeling for opponent agents in fighter pilot simulators.

2013-09 Fabio Gori (RUN), Metagenomic Data Analysis: Computational Methods and Applications.


2013-11 Evangelos Pournaras(TUD), Multi-level Reconfigurable Self-organization in Overlay Services.

2013-12 Marian Razavian(VU), Knowledge-driven Migration to Services.

2013-13 Mohammad Safiri(UT), Service Tailoring: User-centric creation of integrated IT-based homecare services to support independent living of elderly.

2013-14 Jafar Tanha (UVA), Ensemble Approaches to Semi-Supervised Learning Learning.


2013-16 Eric Kok (UU), Exploring the practical benefits of argumentation in multi-agent deliberation.

2013-17 Koen Kok (VU), The PowerMatcher: Smart Coordination for the Smart Electricity Grid.

2013-18 Jeroen Janssens (UVT), Outlier Selection and One-Class Classification.

2013-19 Renze Steenhuisen (TUD), Coordinated Multi-Agent Planning and Scheduling.

2013-20 Katja Hofmann (TUD), Coordinating Multi-Agent Planning and Scheduling.

2013-21 Sander Wubben (UVT), Fast and Reliable Online Learning to Rank for Information Retrieval.

2013-22 Tom Chassen (RUN), Causality and Logic.

2013-23 Patricio de Alencar Silva(UVT), Value Activity Monitoring.

2013-24 Haitham Bou Ammar (UM), Automated Transfer in Reinforcement Learning.


2013-28 Frans van der Sluis (UT), When Complexity becomes Interesting: An Inquiry into the Information eXperience.

2013-29 Iwan de Kok (UT), Listening Heads.


2013-32 Kamakshi Rajagopal (OUN), Networking For Learning: The role of Networking in a Lifelong Learner’s Professional Development.

2013-33 Qi Gao (TUD), User Modeling and Personalization in the Microblogging Sphere.

2013-34 Kien Tjin-Kam-Jet (UT), Distributed Deep Web Search.


2013-36 Than Lam Hoang (TUE), Pattern Mining in Data Streams.

2013-37 Dirk Brner (OUN), Ambient Learning Displays.


2013-40 Pim Nijssen (UM), Monte-Carlo Tree Search for Multi-Player Games.

2013-41 Jochem Liem (UVA), Supporting the Conceptual Modelling of Dynamic Systems: A Knowledge Engineering Perspective on Qualitative Reasoning.


2013-44 Terry Kakeeto (UVT), Relationship Marketing for SMEs in Uganda.

2013-45 Muhammad Umair (UVA), Adaptivity, emotion, and Rationality in Human and Ambient Agent Models.

2013-46 Adam Vanya (VU), Supporting Architecture Evolution by Mining Software Repositories.


2013-48 Marijn Plomp (UU), Maturing Interorganisation Information Systems.

2013-49 Wolfgang Reinhardt (OU), Awareness Support for Knowledge Workers in Research Networks.

2012-07 Rianne van Lamalgen (VU), When the Going Gets Tough: Exploring Agent-based Models of Human Performance under Demanding Conditions.

2012-08 Gerben de Vries (UVA), Kernel Methods for Vessel Trajectories.

2012-09 Ricardo Neisse (UT), Trust and Privacy Management Support for Context-Aware Service Platforms.

2012-10 David Smits (TUE), Towards a Generic Distributed Adaptive Hypermedia Environment.

2012-11 J.C.B. Rantham Prabhakara (TUE), Process Mining in the Large: Preprocessing, Discovery, and Diagnostics.

2012-12 Kees van der Sluijs (TUE), Model Driven Design and Data Integration in Semantic Web Information Systems.

2012-13 Suleman Shahid (UVT), Fun and Face: Exploring non-verbal expressions of emotion during playful interactions.


2012-15 Natalie van der Wal (VU), Social Agents. Agent-Based Modelling of Integrated Internal and Social Dynamics of Cognitive and Affective Processes.

2012-16 Fiemke Both (VU), Helping people by understanding them - Ambient Agents supporting task execution and depression treatment.


2012-18 Eltjo Poort (VU), Improving Solution Architecting Practices.


2012-20 Ali Bahramisharif (RUN), Covert Visual Spatial Attention, a Robust Paradigm for Brain-Computer Interfacing.

2012-21 Roberto Cornacchia (TUD), Querying Sparse Matrices for Information Retrieval.

2012-22 Thijis Vis (UVT), Intelligence, politie en veiligheidsdienst: verenigbare grootheden?.

2012-23 Christian Muehl (UT), Toward Affective Brain-Computer Interfaces: Exploring the Neurophysiology of Affect during Human Media Interaction.

2012-24 Laurens van der Werff (UT), Evaluation of Noisy Transcripts for Spoken Document Retrieval.

2012-25 Silja Eckartz (UT), Managing the Business Case Development in Inter-Organizational IT Projects: A Methodology and its Application.

2012-26 Emile de Maat (UVA), Making Sense of Legal Text.
2012-27 Hayrettin Grkk(UT), Mind the Sheep! User Experience Evaluation & Brain-Computer Interface Games.
2012-28 Nancy Pascale (UVT), Engendering Technology Empowering Women.
2012-29 Almer Tigelaa (UT), Peer-to-Peer Information Retrieval.
2012-30 Alina Pommeranz (TUD), Designing Human-Centered Systems for Reflective Decision Making.
2012-31 Emily Bagarukayo (RUN), A Learning by Construction Approach for Higher Order Cognitive Skills Improvement, Building Capacity and Infrastructure.
2012-32 Wietse Visser (TUD), Qualitative multi-criteria preference representation and reasoning.
2012-33 Rory Sie (OUN), Coalitions in Cooperation Networks (COCOON).
2012-34 Pavol Jancura (RUN), Evolutionary analysis in PPI networks and applications.
2012-38 Selmar Smit (VU), Parameter Tuning and Scientific Testing in Evolutionary Algorithms.
2012-39 Hassan Fatemi (UT), Risk-aware design of value and coordination networks.
2012-40 Agus Gunawan (UVT), Information Access for SMEs in Indonesia.
2012-41 Sebastian Kelle (OU), Game Design Patterns for Learning.
2012-42 Dominique Verpoorten (OU), Reflection Amplifiers in self-regulated Learning.
2012-43 Anna Tordai (VU), On Combining Alignment Techniques.
2012-44 Benedikt Kratz (UVT), A Model and Language for Business-aware Transactions.
2012-46 Manos Tzagkias (UVA), Mining Social Media: Tracking Content and Predicting Behavior.
2012-47 Qing Gu (VU), Guiding service-oriented software engineering - A view-based approach.
2012-48 Jeroen de Jong (TUD), Heuristics in Dynamic Scheduling: a practical framework with a case study in elevator dispatching.
2012-50 Nick Tinnemeyer(UU), Organizing Agent Organizations. Syntax and Operational Semantics of an Organization-Oriented Programming Language.
2012-51 Jan Martijn van der Werf (TUE), Compositional Design and Verification of Component-Based Information Systems.
<table>
<thead>
<tr>
<th>Project Number</th>
<th>Name and Affiliation</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-24</td>
<td>Herwin van Welbergen (UT)</td>
<td>Behavior Generation for Interpersonal Coordination with Virtual Humans On Specifying, Scheduling and Realizing Multimodal Virtual Human Behavior.</td>
</tr>
<tr>
<td>2011-26</td>
<td>Matthijs Aart Pontier (VU)</td>
<td>Virtual Agents for Human Communication - Emotion Regulation and Involvement-Distance Trade-Offs in Embodied Conversational Agents and Robots.</td>
</tr>
<tr>
<td>2011-27</td>
<td>Aniel Bhulai (VU)</td>
<td>Dynamic website optimization through autonomous management of design patterns.</td>
</tr>
<tr>
<td>2011-29</td>
<td>Faisal Kamiran (TUE)</td>
<td>Discrimination-aware Classification.</td>
</tr>
<tr>
<td>2011-31</td>
<td>Ludo Waltman (EUR)</td>
<td>Computational and Game-Theoretic Approaches for Modeling Bounded Rationality.</td>
</tr>
<tr>
<td>2011-33</td>
<td>Tom van der Weide (UU)</td>
<td>Arguing to Motivate Decisions.</td>
</tr>
<tr>
<td>2011-34</td>
<td>Paolo Turrini (UU)</td>
<td>Strategic Reasoning in Interdependence: Logical and Game-theoretical Investigations.</td>
</tr>
<tr>
<td>2011-35</td>
<td>Maaike Harbers (UU)</td>
<td>Explaining Agent Behavior in Virtual Training.</td>
</tr>
<tr>
<td>2011-36</td>
<td>Erik van der Spek (UU)</td>
<td>Experiments in serious game design: a cognitive approach.</td>
</tr>
<tr>
<td>2011-38</td>
<td>Nyree Lemmens (UM)</td>
<td>Bee-inspired Distributed Optimization.</td>
</tr>
<tr>
<td>2011-39</td>
<td>Joost Westra (UU)</td>
<td>Organizing Adaptation using Agents in Serious Games.</td>
</tr>
<tr>
<td>2011-40</td>
<td>Viktor Clerc (VU)</td>
<td>Architectural Knowledge Management in Global Software Development.</td>
</tr>
<tr>
<td>2011-41</td>
<td>Luan Ibraimi (UT)</td>
<td>Cryptographically Enforced Distributed Data Access Control.</td>
</tr>
<tr>
<td>2011-42</td>
<td>Michal Sindlar (UU)</td>
<td>Explaining Behavior through Mental State Attribution.</td>
</tr>
<tr>
<td>2011-44</td>
<td>Boris Reuderink (UT)</td>
<td>Robust Brain-Computer Interfaces.</td>
</tr>
<tr>
<td>2011-48</td>
<td>Mark Ter Maat (UT)</td>
<td>Response Selection and Turn-taking for a Sensitive Artificial Listening Agent.</td>
</tr>
</tbody>
</table>