March 7–11, 2017 Oslo, Norway

and the second



Association for Computing Machinery

Advancing Computing as a Science & Profession

# CHIIR'17

Proceedings of the 2017 Conference Human Information Interaction and Retrieval

Sponsored by: ACM SIGIR

In cooperation with:

ACM SIGCHI

Supported by: Oslo and Akershus University College & City of Oslo



Association for Computing Machinery

Advancing Computing as a Science & Profession

The Association for Computing Machinery 2 Penn Plaza, Suite 701 New York, New York 10121-0701

Copyright © 2017 by the Association for Computing Machinery, Inc. (ACM). Permission to make digital or hard copies of portions of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. Copyright for components of this work owned by others than ACM must be honored. Abstracting with credit is permitted. To copy otherwise, to republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee. Request permission to republish from: permissions@acm.org or Fax +1 (212) 869-0481.

For other copying of articles that carry a code at the bottom of the first or last page, copying is permitted provided that the per-copy fee indicated in the code is paid through www.copyright.com.

**ISBN:** 978-1-4503-4677-1

Additional copies may be ordered prepaid from:

ACM Order Department PO Box 30777 New York, NY 10087-0777, USA Phone: 1-800-342-6626 (USA and Canada) +1-212-626-0500 (Global) Fax: +1-212-944-1318 E-mail: acmhelp@acm.org Hours of Operation: 8:30 am - 4:30 pm ET

Printed in the USA.

#### **CHIIR 2017 Chairs' Welcome**

It is our great pleasure to welcome you to Oslo and to the *Second ACM SIGIR Conference on Information Interaction and Retrieval (CHIIR'17)*. The number of contributed papers and short papers, and the number of conference attendees, clearly demonstrate the value of this unique forum for researchers and students interested in the user-centered aspects of information interaction and information retrieval. We have participants from all five continents, there is a good combination of senior and aspiring researchers among the presenters, and we have attracted interesting workshops and tutorials – in sum, we feel that the program for CHIIR'17 validates the decision of ACM SIGIR to continue to fully sponsor the conference.

We would like to recognize the people and institutions who have contributed to making CHIIR'17 a success. We first thank the authors for providing the content of the conference program. The three Program chairs, Luanne Freund, Birger Larsen and Dan Russel have invested a lot of time and effort in organizing the paper selection process both for the full and short papers, and in putting together a very interesting program, with the help of more than 80 members of the Senior program committee and the Program committee. We are grateful for the efforts of the Tutorials and Workshops chair, Preben Hansen, the organizer of the Doctoral consortium, Katriina Byström, and the Publications chair, Sampath Jayarathna. Our colleagues at OAUC, Erik Eileng and Kjetil Iseli have offered invaluable support with respectively the financial organization and the website management. The three keynote speakers, Ann Blandford, Norbert Fuhr and Håkon Wium Lie, were all immediately willing to share their insights as veterans in the field.

Finally, we thank the hosting organization, Oslo and Akershus University College, for generous sponsorship and all the practical support we could wish for, our colleagues at the Department of Archivistics, Library and Information Science for help with all the logistics of the conference, and the City of Oslo for inviting us into the City Hall for the welcome reception.

We hope that you will find the program interesting and thought-provoking and the interaction with old and new friends and colleagues engaging and stimulating, - and that you will enjoy the amenities of the OAUC and the city of Oslo!

**Ragnar Nordlie** General Co-chair Oslo and Akershus University College

Nils Pharo General Co-chair Oslo and Akershus University College

#### CHIIR 2017 Program Chairs' Welcome

It is an honour to present the program for the second ACM SIGIR Conference on Human Information Interaction and Retrieval (CHIIR 2017), held in Oslo, Norway from March 7 to March 11, 2017. CHIIR offers the opportunity to present and discuss research on user-centered approaches to information retrieval, information access and information interaction, including studies of interactive systems, searcher behaviour, novel interaction paradigms, interface design, new evaluation methods, and a range of related areas. CHIIR is an interdisciplinary event in which researchers, students and practitioners working across several areas, including information retrieval, information science and human computer interaction, come together to think creatively about the challenges and opportunities afforded by digital information systems. Welcome to all the CHIIR-ists joining us this year!

The CHIIR 2017 program consists of Full Papers (10 pages), Perspectives Papers (10 pages) and Short Papers (4 pages). We received a total of 112 submissions: 48 Full Papers, 9 Perspectives Papers and 55 Short Papers. Of these, we accepted 19 Full Papers (40%), 5 Perspectives Papers (56%) and 36 Short Papers (65%). We also accepted one Full Paper as a Short Paper. We were pleased to receive so many strong Perspectives Papers, which are meant to present novel ideas or insights, and we hope these will inspire some great discussions. Each Full and Perspectives paper is allocated a 30-minute presentation slot in the program. Short papers are presented as posters during a special evening session, beginning with a short boaster presentation.

In addition to contributed papers, the CHIIR program features three keynote talks by prominent academic and industry researchers, representing the breadth of interests in the CHIIR community: Norbert Fuhr (University of Duisburg-Essen, Germany), Ann Blandford (University College London, UK) and Håkon Wium Lie (Opera Software, Norway). In addition to these speakers and the main conference program, CHIIR features a Doctoral Consortium, two Tutorials, and three Workshops.

We would like to acknowledge the excellent work of the Organizing Committee, including the Doctoral Consortium Chair, Katriina Byström (Oslo and Akershus University College of Applied Sciences, Norway); the Workshops and Tutorials Chair, Preben Hansen (Stockholm University, Sweden), and the Proceedings Chair, Sampath Jayarathna (California State Polytechnic University Pomona, USA). The paper reviewing and selection process was enabled by an outstanding 12 member Senior Program Committee and a diverse and international general Program Committee consisting of 77 members. Our thanks and the credits for creating a high quality technical program go to them.

We would also like to thank the general chairs, Ragnar Nordlie and Nils Pharo, both of Oslo and Akershus University College of Applied Sciences, Norway, who placed their trust in us, provided guidance when needed, and contributed substantially to the excellent program in place for the conference. A final thanks and enthusiastic cheer (!) for the authors and attendees who are contributing their work and ideas here in Oslo at this second CHIIR conference. We hope that you find the CHIIR 2017 program interesting and thought-provoking and that you return home with exciting research plans.

#### Luanne Freund

CHIIR 2017 Program Co-Chair University of British Columbia, Canada **Birger Larsen** CHIIR 2017 Program Co-Chair Aalborg University, Denmark Daniel M. Russell CHIIR 2017 Program Co-Chair Google, Inc., USA

## **Table of Contents**

С	HIIR 2017 Conference Organization
С	HIIR 2017 Sponsors & Supportersxiv
K	eynote Address
•	Modeling Interactive Information Retrieval as a Stochastic Process
•	Engaging In Information Interaction
•	CSS and User-Adapted Web Presentations
P	aper Session: Studying Users
•	User Interests in German Social Science Literature Search – A Large Scale Log Analysis
	Daniel Hienert (GESIS – Leibniz Institute for the Social Sciences)
•	SearchGazer: Webcam Eye Tracking for Remote Studies of Web Search
•	Asking "Good" Questions: Questionnaire Design and Analysis in Interactive Information Retrieval Research
P	aper Session: Visualization and Browsing
•	Something is Lost, Something is Found: Book Use at the Library Shelves
•	Manoeuvres in the Dark: Design Implications of the Physical Mechanics of Library Shelf Browsing
•	Visual Re-Ranking for Multi-Aspect Information Retrieval
P	aper Session: Seeking and Tasks
•	User Behaviour and Task Characteristics: A Field Study of Daily Information Behaviour
•	<b>Evaluating the Value of Lensing Wikipedia During the Information Seeking Process</b> 77 Orland Hoeber ( <i>University of Regina</i> ), Anoop Sarkar, Andrei Vacariu, Max Whitney ( <i>Simon Fraser University</i> ), Manali Gaikwad, Gursimran Kaur ( <i>University of Regina</i> )
•	<b>Exploration or Fact-Finding: Inferring User's Search Activity Just in Time</b>
P	aper Session: Design Issues
•	What Snippet Size is Needed in Mobile Web Search?

•	<b>Structure-Aware Visualization of Text Corpora</b> . Jaspreet Singh ( <i>L3S Research Center</i> ), Sergej Zerr ( <i>University of Southampton</i> ), Stefan Siersdorfer ( <i>Siersdorfer</i> )	107
•	A Theoretical Framework for Conversational Search Filip Radlinski, Nick Craswell (Microsoft)	117
Pa	aper Session: Search Dynamics	
•	Investigating Users' Time Perception during Web Search Cheng Luo, Xue Li, Yiqun Liu ( <i>Tsinghua University</i> ), Tetsuya Sakai ( <i>Waseda University</i> ), Fan Zhang, Min Zhang, Shaoping Ma ( <i>Tsinghua University</i> )	127
•	<b>Understanding Ephemeral State of Relevance</b> Jiepu Jiang (University of Massachusetts, Amherst), Daqing He (University of Pittsburgh), Diane Kelly (University of Tennessee, Knoxville), James Allan (University of Massachusetts, Amherst)	137
•	The Tetris Model of Resolving Information Needs within the Information Seeking Process	147
	Max L. Wilson (University of Nottingham)	
Pa	aper Session: Social Signals	
•	Fresh and Diverse Social Signals: Any Impacts on Search? Ismail Badache (University of Aix-Marseille), Mohand Boughanem (Université Toulouse III)	155
•	Bad Users or Bad Content? Breaking the Vicious Cycle by Finding Struggling Students in Community Question-Answering Long T. Le, Chirag Shah ( <i>Rutgers University</i> ), Erik Choi ( <i>Brainly</i> )	165
Pa	aper Session: Searching and Learning	
•	Making Sense of Conflicting Science Information: Exploring Bias in the Search Engine Result Page	175
•	Alamir Novin, Eric Meyers (University of British Columbia)         Learning From the News: The Role of Topic, Multimedia and Interest in Knowledge Retention         Heather O'Brien, Jocelyn McKay, Jacob Vangeest (University of British Columbia)	185
Pa	aper Session: Personal Information Management and Collaborative Sear	'nch
•	Self-Es: The Role of Emails-to-Self in Personal Information Management Horatiu Bota (University of Glasgow), Paul N. Bennett, Ahmed Hassan Awadallah, Susan T. Dumais (Microsoft Research)	
•	Large-Scale Analysis of Email Search and Organizational Strategies	215
•	An Interface for Supporting Asynchronous Multi-Level Collaborative Information Retrieval Nyi Nyi Htun (Glasgow Caledonian University), Martin Halvey (University of Strathclyde), Lynne Baillie (Heriot-Watt University)	225
•	How Can We Better Support Users with Non-Uniform Information Access in Collaborative Information Retrieval? Nyi Nyi Htun (Glasgow Caledonian University), Martin Halvey (University of Strathclyde), Lynne Baillie (Heriot-Watt University)	235
S	hort Papers	
•	Information Sharing and Search Collaboration Activities of Health Consumers in South East Asia Anushia Inthiran (University of Canterbury)	245

•	Query Reformulation Patterns of Mixed Language Queries in Different Search Intents. Hengyi Fu (Florida State University)	249
•	Automatic Summarization of Domain-specific Forum Threads: Collecting Reference Data	253
	Suzan Verberne, Antal van den Bosch ( <i>Radboud University</i> ), Sander Wubben, Emiel Krahmer ( <i>Tilburg University</i> )	
•	Accidentally Successful Searching: Users' Perceptions of a Digital Library Sanna Kumpulainen ( <i>Tampere University of Technology</i> ), Heli Kautonen ( <i>Aalto University</i> )	257
•	User Click Detection in Ideal Sessions Mustafa Zengin, Ben Carterette (University of Delaware)	261
•	<b>Personalised Query Suggestion for Intranet Search with Temporal User Profiling</b> Thanh Vu, Alistair Willis, Udo Kruschwitz ( <i>University of Essex</i> ), Dawei Song ( <i>The Open University</i> )	265
•	Goal-Directed Information Seeking in Time-Synchronized and Topic-Linked Records of the Apollo Lunar Missions Tiffany Jachja, Douglas W. Oard (University of Maryland College Park)	269
•	Towards Identifying User Intentions in Exploratory Search using Gaze and Pupil Tracking	273
	Thomas Low (Otto von Guericke University Magdeburg), Nikola Bubalo (Ulm University), Tatiana Gossen, Michael Kotzyba (Otto von Guericke University Magdeburg), André Brechmann (Leibniz-Institute for Neurobiology), Anke Huckauf (Ulm University), Andreas Nürnberger (Otto von Guericke University Magdeburg)	
•	'Too Much Serendipity': The Tension between Information Seeking and Encountering at the Library Shelves	
•	Strangers in a Strange Land: A Study of Second Language Speakers Searching for e-Services David Brazier, Morgan Harvey (Northumbria University)	281
•	Visual Analysis of Dyslexia on Search Andrew MacFarlane, George Buchanan (City University of London), Areej Al-Wabil (Massachusetts Institute of Technology), Gennady Andrienko, Natalia Andrienko (City University of London)	285
•	Relationships between Age, Domain Knowledge and Prior Knowledge Pre-activation on Information Searching	289
	Mylène Sanchiz, Aline Chevalier (University of Toulouse), Wai-Tat Fu (Cascade Lab), Franck Amadieu (University of Toulouse)	289
•	Perceptions of the Effect of Fragmented Attention on Mobile Web Search Tasks Morgan Harvey, Matthew Pointon (Northumbria University)	293
•	Manipulating the Perception of Credibility in Refugee Related Social Media Posts Johannes Aigner, Amelie Durchardt, Thiemo Kersting, Markus Kattenbeck, David Elsweiler (University of Regensburg)	297
•	Focus Paragraph Detection for Online Zero-Effort Queries: Lessons Learned from Eye-Tracking Data Christin Seifert, Annett Mitschick ( <i>Technische Universität Dresden</i> ), Jörg Schlötterer ( <i>University of Passau</i> ), Raimund Dachselt ( <i>Technische Universität Dresden</i> )	301
•	A Process Model of Scholarly Media Annotation	305
•	Web-Retrieval Supported Argument Space Exploration	309
•	Using Topic Models to Assess Document Relevance in Exploratory Search User Studies Alan Medlar, Dorota Głowacka (University of Helsinki)	313

•	A Structural Equation Model of Information Retrieval Skills Emi Ishita (Kyushu University), Yosuke Miyata (Teikyo University), Shuichi Ueda (Rikkyo University), Keiko Kurata (Keio University)	317
•	Categorization of Known-Item Search Terms in a TV Archive Anne-Stine Ruud Husevåg (Oslo and Akershus University College of Applied Science)	321
•	How Do People Interact in Conversational Speech-Only Search Tasks: A Preliminary Analysis	325
•	Discerning the Quality of Questions in Educational Q&A using Textual Features Manasa Rath, Long T. Le, Chirag Shah ( <i>Rutgers University</i> )	329
•	Scroll up or down? Using Wheel Activity as an Indicator of Browsing Strategy across Different Contextual Factors Chang Liu ( <i>Peking University</i> ), Jiqun Liu ( <i>Rutgers University</i> ), Yiming Wei ( <i>Carnegie Mellon University</i> )	333
•	Evaluation of the Comprehensiveness of Bar Charts with and without Stacking Functionality using Eye-Tracking Falk Böschen ( <i>Kiel University</i> ), Benjamin Strobel ( <i>IPN - Leibniz Institute for Science and Mathematics Education</i> ), Steffen Goos, Christoph Liebers, Bastian Rathje ( <i>Kiel University</i> ), Ansgar Scherp ( <i>Kiel University &amp; ZBW - Leibniz Information Centre for Economics</i> )	337
•	I Can and So I Search More: Effects Of Memory Span On Search Behavior Jacek Gwizdka (University of Texas at Austin)	341
•	What Do You Mean Exactly? Analyzing Clarification Questions in CQA. Pavel Braslavski (Ural Federal University), Denis Savenkov, Eugene Agichtein (Emory University), Alina Dubatovka (Saint Petersburg University)	345
•	Time Limits, Information Search and the Use of Search Assistance	349
•	Investigating Information Seekers' Selection of Interpersonal and Impersonal Sources Yiwei Wang, Shawon Sarkar, Chirag Shah ( <i>Rutgers University</i> )	353
•	Sketching Dynamic User-Item Interactions for Online Item Recommendation Takuya Kitazawa ( <i>The University of Tokyo</i> )	357
•	Designing Search Tasks for Archive Search Jaspreet Singh, Avishek Anand (Leibniz Universität Hannover)	361
•	Identifying Useful and Important Information within Retrieved Documents Piyush Arora, Gareth J.F. Jones (Dublin City University)	365
•	Telling How to Narrow it Down: Browsing Path Recommendationfor Exploratory SearchMostafa Dehghani (University of Amsterdam), Glorianna Jagfeld (University of Stuttgart),Hosein Azarbonyad, Alex Olieman, Jaap Kamps, Maarten Marx (University of Amsterdam)	369
•	Incorporating Task Analysis in the Design of a Tool for a Complex and Exploratory Search Task	373
•	Analysis of Children's Queries and Click Behavior on Ranked Results and Their Thought Processes in Google Search	377
•	<b>Do Highlights Affect Comprehension? Lessons from a User Study</b> Samuel Dodson, Luanne Freund, Rick Kopak (University of British Columbia)	381
•	Slide Over Here: The Various Adjacencies of Co-borrowed Ebooks Dana McKay, George Buchanan (University of Melbourne)	385
•	Skip or Stay: Users' Behavior in Dealing with Onsite Information Interaction Crowd-Bias Seyyed Hadi Hashemi, Jaap Kamps (University of Amsterdam)	389

#### **Doctoral Consortiums**

•	Exploring the Role of Named Entities in Automatic Indexing Anne-Stine Ruud Husevåg (Oslo University College of Applied Science)	
•	Investigating Mobile Social Media Users' Behaviors in Tourism Collaborative Information Seeking Jannatul Fardous, Jia Tina Du (University of South Australia), Kim-Kwang Raymond Choo (The University of Texas at San Antonio),	395
•	Songshan (Sam) Huang (University of South Australia) Automatic Simulation of Users for Interactive Information Retrieval	300
•	Maram Barifah (Università della Svizzera italiana (USI))	
•	WebSAIL: Computer-based Methods for Enhancing Web Search Literacy	403
•	A Generative Framework to Query Recommendation and Evaluation	407
•	Using Information Foraging Theory to Understand Search Behavior in Different Environments Kevin Ong ( <i>RMIT University</i> )	411
•	Missing Information in the Classroom and Misinformed by the Crowd: Developing Analytical Skills for Understanding Online Controversies Alamir Novin (University of British Columbia)	415
•	The Long Term Effects of Search Query Examples on the Search Behaviours of Non-native Users of Government E-Services David Brazier (Northumbria University)	417
Т	utorials	
•	Interactive Search in Video & Lifelogging Repositories Frank Hopfgartner (University of Glasgow), Klaus Schoeffmann (Klagenfurt University)	421
•	Building Cost-Benefit Models of Information Interactions Leif Azzopardi (University of Strathclyde)	425
N	/orkshops	
•	Second International Workshop On the Evaluation of Collaborative Information Seeking and Retrieval (Ecol'17) Leif Azzopardi (University of Strathclyde), Jeremy Pickens (Catalyst Repository Systems), Chirag Shah (Rutgers University), Laure Soulier (Sorbonne Universités), Lynda Tamine (Université de Toulouse UPS IRIT)	429
•	Second Workshop on Supporting Complex Search Tasks	433
•	NeurollR: Challenges in Bringing Neuroscience to Research in Human-Information Interaction	437
A	uthor Index	

## CHIIR 2017 Conference Organization

Conference Chairs:	Ragnar Nordlie (Oslo & Akershus University College of Applied Sciences, Norway) Nils Pharo (Oslo and Akershus University College of Applied Sciences, Norway)
Program Chairs:	Luanne Freund (University of British Columbia, Canada) Birger Larsen (Aalborg University, Denmark) Dan Russel (Google, USA)
Workshop & Tutorial Chair:	Preben Hansen (Stockholm University, Sweden)
Proceedings Chair:	Sampath Jayarathna (California State Polytechnic University Pomona, USA)
Doctoral Consortium Chair:	Katriina Byström (Oslo and Akershus University College of Applied Sciences, Norway)
Senior Program Committee:	Leif Azzopardi (University of Glasgow, UK) Jaap Kamps (University of Amsterdam, Netherlands) Diane Kelly (University of Tennessee, USA) Gary Marchionini (University of North Carolina at Chapel Hill, USA) Andreas Nuernberger (Otto-von-Guericke University of Magdeburg, Germany) Heather O'Brien (University of British Columbia, Canada) Ian Ruthven (University of Strathclyde, UK) Chirag Shah (Rutgers University, USA) Catherine Smith (Kent State University, USA) Paul Thomas (Microsoft, Australia) Peiling Wang (University of Tennessee, USA) Ryen W. White (Microsoft Research, USA)
Program Committee:	<ul> <li>Dirk Ahlers (Norwegian University of Science and Technology, Norway)</li> <li>Omar Alonso (Microsoft, USA)</li> <li>Robin Aly (University of Twente, Netherlands)</li> <li>Judit Bar-Ilan (Bar-Ilan University, Israel)</li> <li>Klaus Berberich (Max Planck Institute for Informatics, Germany)</li> <li>Nicholas Belkin (Rutgers University, USA)</li> <li>Ralf Bierig (National College of Ireland, Ireland)</li> <li>Kathy Brennan (University of North Carolina at Chapel Hill, USA)</li> <li>Peter Bruza (Queensland University, London, UK)</li> <li>Robert Capra (University of North Carolina at Chapel Hill, USA)</li> <li>Ed H. Chi (Google, Inc., USA)</li> <li>Charles Cole (McGill University, Canada)</li> <li>Michael Cole (LexisNexis, USA)</li> <li>Anita Crescenzi (University of North Carolina at Chapel Hill, USA)</li> <li>Tina Du (University of South Australia, Australia)</li> <li>David Ellis (Aberystwyth University, UK)</li> <li>Nicola Ferro (University of Padua, Italy)</li> </ul>

Program Committee	Ingo Frommholz (University of Bedfordshire, UK)
(continued):	Wai-Tat Fu (University of Illinois, USA)
	Norbert Fuhr (University of Duisburg-Essen, Germany)
	Elke Grefeneder (Humboldt University, Germany)
	Matthias Hagen (Bauhaus-Universität Weimar, Germany)
	Preben Hansen (Stockholm University, Sweden)
	Morgan Harvey (Northumbria University, UK)
	Claudia Hauff (Delft University of Technology, Netherlands)
	Jiyin He (Centrum Wiskunde & Informatica, Netherlands)
	Daqing He (University of Pittsburgh, USA)
	Brent Hecht (University of Minnesota, USA)
	Jeff Huang (Brown University, USA)
	Isto Huvila (Uppsala University, Sweden)
	Peter Ingwersen (University of Copenhagen, Denmark)
	Hideo Joho (University of Tsukuba, Japan)
	Gareth Jones (Dublin City University, Ireland)
	Yvonne Kammerer (Knowledge Media Research Center, Germany)
	Noriko Kando (National Institute of Informatics, Japan)
	Saraschandra Karanam (Utrecht University, Netherlands)
	Jussi Karlgren (Gavagai & KTH Royal Institute of Technology, Sweden)
	Jaana Kekäläinen (University of Tampere)
	Claus-Peter Klas (GESIS - Leibniz Institute for Social Sciences, Germany)
	Rick Kopak (University of British Columbia, Canada)
	Udo Kruschwitz (University of Essex, UK)
	Sanna Kumpulainen (Tampere University of Technology, Finland)
	Dirk Lewandowski (Hamburg University of Applied Sciences, Germany)
	Christina Lioma (University of Copenhagen, Denmark)
	Suzanne Little (Dublin City University, Ireland)
	Chang Liu (Peking University, China)
	Jingjing Liu (University of South Carolina, USA)
	Qiaoling Liu (CareerBuilder LLC, USA)
	Ying-Hsang Liu (Charles Sturt University, Australia)
	Andreas Lommatzsch (Technische Universität Berlin, Germany)
	Irene Lopatovska (Pratt Institute, USA)
	Marianne Lykke (Aalborg University, Denmark)
	Andrew Macfarlane (City University London, UK)
	Athanasios Mazarakis (ZBW / Kiel University, Germany)
	Dana Mckay (Swinburne University of Technology Library, Australia)
	Peter Mutschke (GESIS – Leibniz Institute for the Social Sciences, Germany)
	Gabriella Pasi (Università degli Studi di Milano Bicocca, Italy)
	Edie Rasmussen (University of British Columbia, Canada)
	Rebecca Reynolds (Rutgers University, USA)
	Soo Young Rieh (University of Michigan, USA)
	Stefan Rueger (Knowledge Media Institute, Open University, UK)
	Tony Russell-Rose (UXLabs, UK)
	Alan Said (University of Skövde, Sweden)
	Ladislao Salmeron (University of Valencia, Spain)
	Eero Sormunen (University of Tampere, Finland)

Program Committee	Jaime Teevan (Microsoft Research, USA)
(continued):	Anastasios Tombros (Queen Mary University of London, UK)
	Andrew Trotman (University of Otago, New Zealand)
	Pertti Vakkari (University of Tampere, Finland)
	Suzan Verberne (Radboud University Nijmegen, Netherlands)
	Barbara Wildemuth (University of North Carolina at Chapel Hill, USA)
	Iris Xie (Universty of Wisconsin-Milwaukee, USA)
	Xiaojun Yuan (University at Albany, State University of New York, USA)
	Pengyi Zhang (Peking University, China)
	Yan Zhang (University of Texas at Austin, USA)
	Yong Zheng (Illinois Institute of Technology, USA)

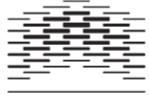
## **CHIIR 2017 Sponsors & Supporters**

Sponsors:





Oslo and Akershus University College



Supporters:

OSLO AND AKERSHUS UNIVERSITY COLLEGE OF APPLIED SCIENCES



City of Oslo

City of Oslo