



## Detailed schedule, CHIIR 2021

**All times are UTC;** see the CHIIR 2021 website for an overview in your timezone.

**Session format.** The technical sessions, “A” through “F”, will emphasise discussion over presentation. Authors will present only a very brief overview of their paper, leaving the rest of the time for discussion. To see full presentations in advance (or any time), see the YouTube channel at <https://aka.ms/chiir21videos>.

**Repeats.** Most sessions will run live, twice, generally twelve hours apart. For example, paper session “A” runs at 0200 and 1400 (2am and 2pm) 16 March, UTC time. This means you should be able to see almost everything, regardless of when you sleep (unless you sleep more than 12 hours).

Exceptions are marked on the schedule with “NOT REPEATED”.

**Posters, demonstrations, and resources.** These short communications are presented by posters, which will be available 24/7 in the “poster room” accessible from the main lobby. Walk up to a poster and press “X” to see it full size. We have also scheduled two sessions for poster viewing — authors will be at their posters for one or both of these (depending on their timezone), so this is a good chance to see some posters and have a chat.

There are four “poster booster” sessions in the schedule. Authors will have one minute to present their work and entice you to their poster. These are fast-moving and should be a lot of fun.

**Social events.** We have three social events scheduled across the three days of the main conference. Day 1 has a treasure hunt, to see some of Canberra; day 2 has pub games, to hang out with friends; and day 3 has online capoeira, to get you out of your chair. Details are in the schedule below.

Of course, you can be social any other time! You might want to investigate the café, in the foyer; or the tables, including games, in the lounge.

**Gather and Zoom.** CHIIR’21 will be hosted on gather.town, which allows ad-hoc voice or video chats as well as videoconferencing in a shared “building”. Some sessions will also use Zoom. You will find links to the space, as well as detailed instructions, in email.

**How to get help.** If you have any questions about the schedule or software, please get in touch with the conference chairs or student volunteers.



UTC	Auckland	Canberra	Tokyo	Beijing	Moscow	Berlin	London	NY	Seattle	Day 1, 14 March UTC Consortium	Day 2, 15 March UTC Tutorials	Day 3, 16 March UTC Main programme	Day 4, 17 March UTC Main programme	Day 5, 18 March UTC Main programme	Day 6, 19 March UTC Workshops
00:00	13:00	11:00	09:00	08:00	03:00	01:00	00:00	20:00 <sup>-1</sup>	17:00 <sup>-1</sup>			Welcome	Poster boosters C	Papers E (x4)	
00:30	13:30	11:30	09:30	08:30	03:30	01:30	00:30	20:30	17:30			Keynote (Kay)	Posters viewing A		
01:00	14:00	12:00	10:00	09:00	04:00	02:00	01:00	21:00	18:00					Papers F (x3)	
01:30	14:30	12:30	10:30	09:30	04:30	02:30	01:30	21:30	18:30						
02:00	15:00	13:00	11:00	10:00	05:00	03:00	02:00	22:00	19:00			Papers A (x4)			
02:30	15:30	13:30	11:30	10:30	05:30	03:30	02:30	22:30	19:30						
03:00	16:00	14:00	12:00	11:00	06:00	04:00	03:00	23:00	20:00						
03:30	16:30	14:30	12:30	11:30	06:30	04:30	03:30	23:30	20:30						
04:00	17:00	15:00	13:00	12:00	07:00	05:00	04:00	00:00	21:00						
04:30	17:30	15:30	13:30	12:30	07:30	05:30	04:30	00:30	21:30						
05:00	18:00	16:00	14:00	13:00	08:00	06:00	05:00	01:00	22:00						
05:30	18:30	16:30	14:30	13:30	08:30	06:30	05:30	01:30	22:30						
06:00	19:00	17:00	15:00	14:00	09:00	07:00	06:00	02:00	23:00			Papers B (x4)	Panel	Social (capoeira)	
06:30	19:30	17:30	15:30	14:30	09:30	07:30	06:30	02:30	23:30					Business	
07:00	20:00	18:00	16:00	15:00	10:00	08:00	07:00	03:00	00:00			Papers C (x3) and poster boosters A	Papers D (x4)	Papers E (x4)	BIRDS 2021 (sess1)
07:30	20:30	18:30	16:30	15:30	10:30	08:30	07:30	03:30	00:30						Made to measure (sess1)
08:00	21:00	19:00	17:00	16:00	11:00	09:00	08:00	04:00	01:00		CWL (sess1)				WEPIR 2021 (sess1)
08:30	21:30	19:30	17:30	16:30	11:30	09:30	08:30	04:30	01:30		Rigour and ethics (live)				
09:00	22:00	20:00	18:00	17:00	12:00	10:00	09:00	05:00	02:00		PhD journey (sess1)				
09:30	22:30	20:30	18:30	17:30	12:30	10:30	09:30	05:30	02:30						
10:00	23:00	21:00	19:00	18:00	13:00	11:00	10:00	06:00	03:00						
10:30	23:30	21:30	19:30	18:30	13:30	11:30	10:30	06:30	03:30						
11:00	00:00 <sup>+1</sup>	22:00	20:00	19:00	14:00	12:00	11:00	07:00	04:00		CWL (q&a1)				
11:30	00:30	22:30	20:30	19:30	14:30	12:30	11:30	07:30	04:30						
12:00	01:00	23:00	21:00	20:00	15:00	13:00	12:00	08:00	05:00			Social (hunt)	Poster boosters D		
12:30	01:30	23:30	21:30	20:30	15:30	13:30	12:30	08:30	05:30				Posters viewing B		
13:00	02:00	00:00 <sup>+1</sup>	22:00	21:00	16:00	14:00	13:00	09:00	06:00						
13:30	02:30	00:30	22:30	21:30	16:30	14:30	13:30	09:30	06:30						
14:00	03:00	01:00	23:00	22:00	17:00	15:00	14:00	10:00	07:00			Papers A (x4)		Papers F (x3)	
14:30	03:30	01:30	23:30	22:30	17:30	15:30	14:30	10:30	07:30						
15:00	04:00	02:00	00:00 <sup>+1</sup>	23:00	18:00	16:00	15:00	11:00	08:00						
15:30	04:30	02:30	00:30	23:30	18:30	16:30	15:30	11:30	08:30						
16:00	05:00	03:00	01:00	00:00 <sup>+1</sup>	19:00	17:00	16:00	12:00	09:00						
16:30	05:30	03:30	01:30	00:30	19:30	17:30	16:30	12:30	09:30						
17:00	06:00	04:00	02:00	01:00	20:00	18:00	17:00	13:00	10:00						
17:30	06:30	04:30	02:30	01:30	20:30	18:30	17:30	13:30	10:30						
18:00	07:00	05:00	03:00	02:00	21:00	19:00	18:00	14:00	11:00			Papers B (x4)	Social (pub games)	Keynote (Edwards)	
18:30	07:30	05:30	03:30	02:30	21:30	19:30	18:30	14:30	11:30					Business	
19:00	08:00	06:00	04:00	03:00	22:00	20:00	19:00	15:00	12:00					Closing	
19:30	08:30	06:30	04:30	03:30	22:30	20:30	19:30	15:30	12:30						
20:00	09:00	07:00	05:00	04:00	23:00	21:00	20:00	16:00	13:00						
20:30	09:30	07:30	05:30	04:30	23:30	21:30	20:30	16:30	13:30			Papers C (x3) and poster boosters B	Papers D (x4)		
21:00	10:00	08:00	06:00	05:00	00:00 <sup>+1</sup>	22:00	21:00	17:00	14:00		CWL (sess2)				
21:30	10:30	08:30	06:30	05:30	00:30	22:30	21:30	17:30	14:30		Rigour and ethics (rec'd)				
22:00	11:00	09:00	07:00	06:00	01:00	23:00	22:00	18:00	15:00		PhD journey (sess2)				Made to measure (sess1)
22:30	11:30	09:30	07:30	06:30	01:30	23:30	22:30	18:30	15:30						WEPIR 2021 (closing)
23:00	12:00	10:00	08:00	07:00	02:00	00:00 <sup>+1</sup>	23:00	19:00	16:00		CWL (q&a2)				
23:30	12:30	10:30	08:30	07:30	02:30	00:30	23:30	19:30	16:30						

## 14 March: Doctoral Consortium

By invitation. Attendees should have details in email.

## 15 March: Tutorials

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0800-1100 (LIVE) | PLENARY ROOM

### Between Rigour and Ethics in Studies Involving Participants with Disabilities: A Tutorial

**Gerd Berget (Oslo Metropolitan University), Andrew MacFarlane (City, University of London)**

Research is conducted within the field of interactive information retrieval on a broad diversity of users, with more interest recently in working with minority groups, such as people with disabilities. The tutorial addresses best practice when conducting research on cohorts that might be regarded as “vulnerable participants”. Previous research has showed that rigorous experiments for all types of users can be difficult, and there are many issues to be raised with regard to the tension between rigor and ethics. The tutorial examines these issues by engaging attendees with particular groups using scenarios and personas.

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0800-1000 (TUTORIAL REPEAT 1) AND 1100-1200 (OFFICE HOURS REPEAT 1) | ROOM A

### User Models, Metrics and Measures of Search: A Tutorial on the CWL Evaluation Framework

**Leif Azzopardi (University of Strathclyde), Alistair Moffat (The University of Melbourne), Paul Thomas (Microsoft), Guido Zuccon (The University of Queensland)**

Evaluation is central to Information Retrieval, and is how we compare the quality of systems. One important principle of evaluation is that the measured score should reflect the user's experience with the system, and hence, conversely, that there should be a connection between the way that the system's users are modelled as behaving, and the characteristics of the metric. In this tutorial we will introduce the CWL approach to user modelling, and describe the recent approaches to evaluation that it has facilitated. The tutorial will be presented as a mix of live-to-camera presentation, recorded in-depth videos, and hands-on activities using the CWL toolkit for your own evaluation tasks. A followup consultation session will also be provided, to allow extended questions and individual discussion with the four presenters.

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0900-1100 (REPEAT 1) | ROOM B

### The PhD Journey: Reaching Out and Lending a Hand

**Johanne R. Trippas (University of Melbourne), David Maxwell (Delft University of Technology)**

A PhD student over their candidature develops many new skills, including: (i) advancing research ideas; (ii) conducting research; (iii) engaging with others about their research – locally and internationally; (iv) developing a profile as an independent researcher; and (v) developing their teaching portfolio. Of course, a candidate is likely to encounter many highs and lows during their candidature. This tutorial will aim to introduce techniques to help advance the PhD process. It will empower attendees to share their own do's and don'ts, review their practices for success, and refine productivity strategies. It will provide an impartial platform for an open and honest discussion about the PhD journey.

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2000-2300 (PLAYBACK) | PLENARY ROOM

### Between Rigour and Ethics in Studies Involving Participants with Disabilities: A Tutorial

**Gerd Berget (Oslo Metropolitan University), Andrew MacFarlane (City, University of London)**

See above.

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2000-2200 (TUTORIAL REPEAT 2) AND 2300-0000 (OFFICE HOURS REPEAT 2) | ROOM A

### User Models, Metrics and Measures of Search: A Tutorial on the CWL Evaluation Framework

See above.

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2100-2300 (REPEAT 2) | ROOM B

### The PhD Journey: Reaching Out and Lending a Hand

See above.

## 16 March: Main Conference, Day 1

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0000-0030 (NOT REPEATED) | PLENARY ROOM

### Conference Opening

**Conference organising committee**

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0030-0130 (NOT REPEATED) | PLENARY ROOM

### Keynote Talk: The Case for Scrutable, Personal, Long-Term User Models for Information Retrieval

**Judy Kay (The University of Sydney)**

**Session chair: Cathy Smith**

Information retrieval systems are a ubiquitous part of people's daily lives. The personalised services of such systems are driven by user models that are typically built from data collected from large numbers of people. There is a growing demand that we build such "intelligent systems" in ways that ensure the user can understand and control them. This is the spirit of legislation across many countries, such as the European Union General Data Protection Regulation (GDPR). Essentially, this reflects people's demand to control their own data and its use.

The talk presents my work and vision to meet this demand by the systematic design and creation of scrutable personalised systems. I will explain the rationale for scrutability – where systems are designed, from their very foundations, so that people can scrutinise them to understand and control how their personal data is captured and transformed into a user model and used in personalised smart systems. I will argue the importance of understanding the three very different definitions of user models across research communities of (1) human-computer interaction, (2) large scale personalisation such as information retrieval and (3) personal user models that have been a mainstay of intelligent tutoring systems. I will discuss how all three fit with human aspects of information retrieval and argue the need for more work on personalised user models, including ones that support client-side personalisation, in combination with more conventional approaches. I will discuss the challenges of the dealing with the uncertainty that is the norm in much user modelling and personalisation and share decades of experience in building interfaces to support scrutability and user control and work that explores challenges of long-term personal data.

*Judy Kay is Professor of Computer Science and Payne-Scott Distinguished Professor at the University of Sydney. She leads the Human Centred Technology Research Cluster, a large multi-disciplinary group. A core focus of her research has been to create infrastructures and interfaces for scrutable user models and personalisation. This began with formal learning contexts and grew to encompass lifelong and life-wide learning that makes use of diverse sensors from the user's personal eco-system of devices. Her work has been integrated into diverse forms of interaction including virtual reality, surface computing, wearables and ambient displays. Her research has been commercialised and deployed and she has extensive publications in leading venues for user modelling, AIED, human computer interaction and ubicomp. She has held many leadership roles in these research communities and is an Advisory Board member of ACM Transaction on Intelligent Interactive Systems (TiiS), Editorial Board member of User Modeling and User-Adapted Interaction (UMUAI), Editor-in-Chief of the IJAIED, International Journal of Artificial Intelligence in Education (IJAIED), and Editor of IMWUT, Interactive Mobile Wearable and Ubiquitous Technology (IMWUT).*

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0200-0330 (REPEAT 1) | PLENARY ROOM

### Papers "A"

#### Search as Learning, Recommendation, Interface and Interaction

**Session chair: Chirag Shah**

Adaptation in Information Search and Decision-Making under Time Constraints

**Anita Crescenzi (The University of North Carolina at Chapel Hill, USA), Robert Capra (The University of North Carolina at Chapel Hill, USA), Bogeum Choi (The University of North Carolina at Chapel Hill, USA), Yuan Li (The University of North Carolina at Chapel Hill, USA)**

LuckyFind: Leveraging Surprise to Improve User Satisfaction and Inspire Curiosity in a Recommender System

**Xi Niu (The University of North Carolina at Charlotte, USA), Ahmad Al-Doulat (The University of North Carolina at Charlotte, USA)**

Interest Development, Knowledge Learning, and Interactive IR: Toward a State-based Approach to Search as Learning

**Jiqun Liu (University of Oklahoma, USA), Yong Ju Jung (University of Oklahoma, USA)**

OrgBox: A Knowledge Representation Tool to Support Complex Search Tasks

**Bogeum Choi (The University of North Carolina at Chapel Hill, USA), Jaime Arguello (The University of North Carolina at Chapel Hill, USA), Robert Capra (The University of North Carolina at Chapel Hill, USA), Austin Ward (The University of North Carolina at Chapel Hill, USA)**

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0600-0730 (REPEAT 1) | PLENARY ROOM

## Papers “B”

### Cognitive Aspects, Interface and Interaction

**Session chair: Stephann Makri**

Cognitive Biases in Search

**Leif Azzopardi (University of Strathclyde, United Kingdom)**

Investigating the Influence of Ads on User Search Performance, Behaviour, and Experience during Information Seeking

**Olivia Foulds (University of Strathclyde, United Kingdom), Leif Azzopardi (University of Strathclyde, United Kingdom), Martin Halvey (University of Strathclyde, United Kingdom)**

Exploring Gaze-Based Prediction Strategies for Preference Detection in Dynamic Interface Elements

**Melanie Heck (University of Mannheim, Germany), Janick Edinger (University of Hamburg, Germany), Jonathan Bünemann (University of Mannheim, Germany), Christian Becker (University of Mannheim, Germany)**

Query suggestions as summarization in exploratory search

**Alan Medlar (University of Helsinki, Finland), Jing Li (University of Helsinki, Finland), Dorota Glowacka (University of Helsinki, Finland)**

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0800-0930 (REPEAT 1 FOR PAPERS; BOASTERS NOT REPEATED) | PLENARY ROOM

## Papers “C”

### Search as Learning, Recommendation

**Session chair: Martin Halvey**

Recommenders with a Mission: Assessing Diversity in News Recommendations

**Sanne Vrijenhoek (Universiteit van Amsterdam, Netherlands), Mesut Kaya (Independent, Turkey), Nadia Metoui (Universiteit van Amsterdam, Netherlands), Judith Möller (Universiteit van Amsterdam, Netherlands), Daan Odijk (RTL, Netherlands), Natali Helberger (Universiteit van Amsterdam, Netherlands)**

Incorporating Active Reading Tools for Search as Learning

**Nirmal Roy (TU Delft, Netherlands), Manuel Valle Torre (TU Delft, Netherlands), Ujwal Gadiraju (TU Delft, Netherlands), David Maxwell (TU Delft, Netherlands), Claudia Hauff (TU Delft, Netherlands)**

Searching to Learn with Instructional Scaffolding

**Arthur Câmara (Delft University of Technology, Netherlands), Nirmal Roy (Delft University of Technology, Netherlands), David Maxwell (Delft University of Technology, Netherlands), Claudia Hauff (Delft University of Technology, Netherlands)**

## Poster Boosters “A”

Lightning presentations describing short work: you can see more in the poster room, during the poster sessions or at any other time. Lightning presentations too from the students who are part of this year’s doctoral consortium.

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1200-1330 (NOT REPEATED) | MYSTERY LOCATION (OOO!)

### Social: The Great Canberra Treasure Hunt

**Compiled by Elisa Mena (RMIT University) and Paul Thomas (Microsoft)**

Can't be in Canberra for CHIIR'21? No worries mate! Form a team, or work on your own, to follow clues around Canberra via Maps and Street View. Instructions will be provided closer to the time. First one to complete the course will be applauded at the business sessions.

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1400-1530 (REPEAT 2) | PLENARY ROOM

### Papers "A"

#### Search as Learning, Recommendation, Interface and Interaction

**Session chair: Chirag Shah**

See above.

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1800-1930 (REPEAT 2) | PLENARY ROOM

### Papers "B"

#### Cognitive Aspects, Interface and Interaction

**Session chair: Stephann Makri**

See above.

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2000-2130 (REPEAT 2 FOR POSTERS; BOASTERS NOT REPEATED) | PLENARY ROOM

### Papers "C"

#### Search as Learning, Recommendation

**Session chair: Martin Halvey**

See above.

### Poster Boosters "B"

Lightning presentations describing short work: you can see more in the poster room, during the poster sessions or at any other time. Lightning presentations too from the students who are part of this year's doctoral consortium.



## 17 March: Main Conference, Day 2

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0000-0030 (NOT REPEATED) | PLENARY ROOM

### Poster Boasters “C”

Lightning presentations describing short work: you can see more in the poster room, during the poster sessions or at any other time. Lightning presentations too from the students who are part of this year’s doctoral consortium.

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0030-0130 (REPEAT 1) | POSTER ROOM

### Poster Viewing

Come along to the poster room (“downstairs”) to see all the posters and demonstrations at CHIIR’21. Authors will be standing by to chat about their work.

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0600-0730 (NOT REPEATED) | PLENARY ROOM

### Panel: Hidden Collections: Information Interaction and Retrieval Challenges for Cultural Heritage

**Arul Baskaran** (Digital Studio Manager—Museum of Applied Arts and Sciences [MAAS])

**Kate Carruthers** (Chief Data & Insights Officer—UNSW Sydney)

**Matthew Connell** (Principal Curator [Computing and Maths], and Acting Director Curatorial, Collections and Exhibitions—Powerhouse Museum [MAAS])

**Amanda Dennet** (Head, Digital Experience—Australian War Memorial)

**Megan Lawrence** (Manager, Digital Experience—Australian Museum)

**Pedro Santos** (Head, Cultural Heritage Digitization—Fraunhofer IGD, Germany)

**Moderator: Matt Adcock** (CSIRO)

The GLAM sector (Galleries, Libraries, Archives, Museums, etc) are the custodians of vast collections of physical objects, but, at most, around only 5% is ever directly accessible to the societies for whom the collections are kept. The sector has a huge interest in digitising collections and using digital tools to create new ways of accessing their collections but they typically face novel issues.

In this panel we will explore some of the challenges of dealing digital information relating to physical artefacts and some of the opportunities that new types of Information Interaction and Retrieval could enable. We’ll touch on 3D digitisation, online access, use of digital information in-gallery, existing/future information management tools, long term archiving of borne-digital artefacts, and much more.

The audience will have the chance to pose questions to the panel, so please come along curious and feel free to submit those at any time during the session.

***Arul Baskaran** heads the Digital Engagement team at the Powerhouse Museum. He works across the Museum’s digital initiatives and public-facing experiences including websites, the online collection, and in-gallery interactives. This role involves digital strategy, user experience, project management, and the creative use of technology to tell stories about the Museum’s extensive collection, exhibitions, and programs. Prior to MAAS Arul was Head of Digital for Television at the Australian Broadcasting Corporation (ABC) where he led the public broadcaster’s pioneering iView on-demand TV service.*

***Kate Carruthers** is Chief Data & Insights Officer for UNSW Sydney, and is also an Adjunct Senior Lecturer in the School of Computer Science & Engineering. She is a Certified Information Security Manager and is currently undertaking postgraduate studies in terrorism and cybersecurity. She is currently working at the intersection of data analytics, AI, ML, privacy, cyber security, and data protection.*

***Matthew Connell**’s research and curatorial interests include computing history, mathematics history, media art and design, interaction design, STEM education and learning, and curatorship. He is currently involved in research projects relating to post-disciplinary curatorship, curating art/science collaborations, interactive immersive systems, audience engagement and learning in maker spaces, and the industrial and cultural implications of digital manufacturing*



technologies. Matthew is also Adjunct Professor, iCinema Centre for Interactive Cinema Research, University of New South Wales.

**Amanda Dennett** is Head of Digital Experience at the Australian War Memorial, leading website, social media and immersive digital projects for the museum. She delivered the Memorial's first virtual reality experience and the Emotion Poppy collaborative research project with CSIRO to track the emotions expressed in social media posts about the 100th anniversary of the end of the First World War. Amanda is passionate about effective government communications and the ethics of technology, and is currently completing a Master of Research at Swinburne University of Technology, researching best practice in Australian Government social media teams.

**Megan Lawrence** is Manager of Digital Experience at the Australian Museum (AM), and leads digital product development for online and onsite visitor experiences as well as innovative projects for scientific data collection and access.

The Digital Experience team works collaboratively with agencies and industry partners on web and mobile projects inspired by the AM's natural & cultural collections and scientific research. Recent projects include the complete redevelopment of the Museum's flagship website [australian.museum](http://australian.museum), mobile app production for the national FrogID citizen science project, as well as gamified locative mixed reality, accessible audio tours and gallery multimedia interactives at the AM.

**Pedro Santos** has been at the Fraunhofer Institute for Computer Graphics Research since 2002. Since 2012, he has headed the Department of Digitization of Cultural Heritage, after having been Deputy Head of the Department for Industrial Applications, now Interactive Engineering Technologies. Pedro Santos studied computer science at the Darmstadt University of Applied Sciences and the Technical University of Lisbon.

In the course of various projects in the field of digital preservation of cultural assets and the increasing demand for possibilities for 3D mass digitization in this area, his department is developing the world's first approach for fast, economical and automated 3D digitization of cultural heritage with a focus on the recording of optical material properties.

Pedro Santos is the author and co-author of over 80 publications and is a reviewer for the Association for Computing Machinery (ACM), the European Association for Computer Graphics (Eurographics), the IEEE Computer Society and other organisations.

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0800-0930 (REPEAT 1) | PLENARY ROOM

## Papers “D”

### Perspectives on Theory and Methods

**Session chair: Udo Kruschwitz**

A Manifesto for Resource Re-Use in Interactive Information Retrieval

**Toine Bogers (Aalborg University, Denmark), Maria Gaede (Humboldt-Universität zu Berlin, Berlin School of Library and Information Science, Germany), Mark Hall (The Information School, University of Sheffield, United Kingdom), Marijn Koolen (Royal Netherlands Academy of Arts and Sciences - Humanities Cluster, Netherlands), Vivien Petras (Humboldt-Universität zu Berlin, Germany)**

Untangling Cost, Effort, and Load in Information Seeking and Retrieval

**Molly McGregor (University of Strathclyde, United Kingdom), Leif Azzopardi (University of Strathclyde, United Kingdom), Martin Halvey (University of Strathclyde, United Kingdom)**

The Effect of Nudges and Boosts on Browsing Privacy in a Naturalistic Environment

**Anna-Marie Ortloff (University of Regensburg, Germany), Steven Zimmerman (University of Essex, United Kingdom), David Elsweller (University of Regensburg, Germany), Niels Henze (University of Regensburg, Germany)**

My Mouse, My Rules: Privacy Issues of Behavioral User Profiling via Mouse Tracking

**Luis A. Leiva (Aalto University, Finland), Ioannis Arapakis (Telefonica Research, Spain), Costas Iordanou (Cyprus University of Technology, Cyprus)**

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1200-1230 (NOT REPEATED) | PLenary ROOM

### Poster Boasters “D”

Lightning presentations describing short work: you can see more in the poster room, during the poster sessions or at any other time. Lightning presentations too from the students who are part of this year’s doctoral consortium.

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1230-1330 (REPEAT 2) | POSTER ROOM

### Poster Viewing

Come along to the poster room (“downstairs”) to see all the posters and demonstrations at CHIIR’21. Authors will be standing by to chat about their work.

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1800-1930 (NOT REPEATED) | THE LOUNGE

### Social: Pub Games

**Quizmaster: Markus Kattenbeck**

Join us for table games, karaoke, and a CHIIRful quiz!

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0800-0930 (REPEAT 2) | PLenary ROOM

### Papers “D”

#### Perspectives on Theory and Methods

**Session chair: Udo Kruschwitz**

See above.

## 18 March: Main Conference, Day 3

0000-0130 (REPEAT 1) | PLENARY ROOM

### Papers “E”

#### Question Answering, Reading

**Session chair: Johanne Trippas**

An Intent Taxonomy for Questions Asked in Web Search

**B. Barla Cambazoglu (RMIT University, Australia), Leila Tavakoli (RMIT University, Australia), Falk Scholer (RMIT University, Australia), Mark Sanderson (RMIT University, Australia), Bruce Croft (University of Massachusetts Amherst, USA)**

Quantifying Human-Perceived Answer Utility in Non-factoid Question Answering

**B. Barla Cambazoglu (RMIT University, Australia), Valeriia Baranova (RMIT University, Australia), Falk Scholer (RMIT University, Australia), Mark Sanderson (RMIT University, Australia), Leila Tavakoli (RMIT University, Australia), Bruce Croft (University of Massachusetts Amherst, USA)**

Lady Chatterley’s Library: Books and Reading as Public Performance and Private Act

**Dana McKay (The University of Melbourne, Australia), Michael Twidale (University of Illinois at Urbana-Champaign, USA), George Buchanan (The University of Melbourne, Australia)**

I’ve Got All My Readers With Me: A Model of Reading as a Social Activity

**Huiwen Zhang (The University of Melbourne, Australia), Dana McKay (The University of Melbourne, Australia), George Buchanan (The University of Melbourne, Australia)**

0200-0330 (REPEAT 1) | PLENARY ROOM

### Papers “F”

#### Cognitive Aspects

**Session chair: Pernilla Qvarfordt**

Rethinking Interest in Studies of Interactive Information Retrieval

**Luanne Sinnamon (University of British Columbia, Canada), Limor Tamim (University of British Columbia, Canada), Samuel Dodson (University of British Columbia, Canada), Heather L. O'Brien (University of British Columbia, Canada)**

User Perceptions of an Intelligent Personal Assistant’s Personality

**Irene Lopatovska (Pratt Institute, USA), Diedre Brown (Pratt Institute, USA), Elena Korshakova (Pratt Institute, USA), Yiqiao Li (Pratt Institute, USA), Jie Min (Pratt Institute, USA), Amber Pasiak (Pratt Institute, USA), Kaige Zheng (Pratt Institute, USA)**

Tip of the Tongue Known-Item Retrieval: A Case Study in Movie Identification

**Jaime Arguello (The University of North Carolina at Chapel Hill, USA), Adam Ferguson (Microsoft, Canada), Emery Fine (Microsoft, Canada), Bhaskar Mitra (Microsoft, Canada), Hamed Zamani (University of Massachusetts at Amherst, USA), Fernando Diaz (Microsoft, Canada)**

0600-0700 (NOT REPEATED) | PLENARY ROOM

### Social: Virtual Capoeira Workshop

**Facilitator: Damiano Spina (in Capoeira a.k.a. Camaleão)**

Join for an introductory (no experience required) workshop of Capoeira. We will do some stretching, basic movements, and sing a couple of Capoeira songs. Having a bit of space to move around is recommended.

Capoeira (/ˌkæpəʊˈeərə/) is an Afro-Brazilian cultural practice, an art form that involves sport, body expression, music, and tradition. Capoeira is a tupi-guaraní word, which in Portuguese means “mato cortado” (in English, “cut bush”). Capoeira promotes mutual respect and inclusion between diverse individuals and communities, as well as the memory of resistance to historical oppression. Since 2014, the “roda de Capoeira” (Capoeira circula) has been inscribed on the Representative List of the Intangible Cultural Heritage of Humanity by UNESCO.

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0700-0730 (REPEAT 1) | PLENARY ROOM

## Business session: CHIIR it Forward

**Chair: Chirag Shah**

CHIIR It Forward is CHIIR's business meeting that is open for everyone. This is where we give an overview of CHIIR as an organization, review the current conference, and more importantly reveal where CHIIR is going in 2022 and 2023. We will have short presentations from those organizers so you can get a taste for what you can look forward to in the coming years!

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0800-0930 (REPEAT 2) | PLENARY ROOM

## Papers "E"

### Question Answering, Reading

**Session chair: Johanne Trippas**

See above.

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1400-1530 (REPEAT 2) | PLENARY ROOM

## Papers "F"

### Cognitive Aspects

**Session chair: Pernilla Qvarfordt**

See above.

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1800-1900 (NOT REPEATED) | PLENARY ROOM

## Keynote Talk: "Now You're Speaking My Language": Towards a Seamless Localized Product Experience

**Ashlee Edwards (Netflix)**

**Session chair: Morgan Harvey**

Increased internet access and improvements in localization processes means that more people have access to information and entertainment than ever before. However, many people still find it difficult to navigate online and offline resources in their preferred language. In this talk, I will describe some of the challenges people face using streaming services and consuming video content in different languages. I will present research on the challenges we've uncovered at Netflix and how we've approached addressing questions around members' language experience. These examples demonstrate how moving away from an English-centric experience can benefit a global audience.

*Ashlee Edwards is a Senior Product Researcher at Netflix leading research efforts for accessibility, localization, and creative innovation. While at Instagram, her work focused on growing and engaging Instagram's user base, crafting a safe and comfortable space for teens on the platform, and understanding international markets. Prior to working in industry, Ashlee's academic research centered around understanding engagement and frustration with search systems and interactive information retrieval. She's written extensively about user experience strategy, including how to share research creatively and measure user engagement, and her research has been highlighted in publications including Bloomberg News. Her past work has also covered topics including online disclosure of sensitive information, using physiological signals to predict user emotional state, and reducing workload in stressful interactions. See <https://aedwards.rocks> for more information.*

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1900-1930 (REPEAT 2) | PLENARY ROOM

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## Conference Closing

**Conference organising committee**

## 19 March: Workshops

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0700-1100 (SESSION 1) | ROOM A

### BIRDS 2021—Bridging the Gap between Information Science, Information Retrieval and Data Science

**Ingo Frommholz (University of Bedfordshire), Haiming Liu (University of Bedfordshire), Massimo Melucci (University of Padua)**

BIRDS — Bridging the Gap between Information Science, Information Retrieval and Data Science — aims to foster the cross-fertilization of Information Science (IS), Information Retrieval (IR), Human-computer Interaction (HCI) and Data Science (DS). Recognizing the commonalities and differences between these communities, the full-day workshop will bring together experts and researchers in IS, IR, HCI and DS to discuss how they can learn from each other to provide more human-driven data and information exploration and retrieval solutions. Therefore, we welcome submissions conveying interdisciplinary ideas on how to utilize, for instance, IS and HCI concepts and theories in IR and/or DS approaches to support users in data and information access, exploration and analysis.

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0800-1200 (SESSION 1) | ROOM B

### Third Workshop on Evaluation of Personalisation in Information Retrieval (WEPIR 2021)

**Gareth Jones (Dublin City University), Nicholas Belkin (Rutgers University), Noriko Kando (National Institute of Informatics, Tokyo), Gabriella Pasi (University of Milano-Bicocca)**

The Third Workshop on Evaluation of Personalisation in Information Retrieval (WEPIR 2021) at CHIIR 2021 will bring together researchers interested in developing methods for the evaluation of personalisation in information retrieval. WEPIR 2021 will build on the successful previous WEPIRs at CHIIR 2018 and CHIIR 2019, and will have a strong emphasis on active participation by workshop attendees. The focus of WEPIR 2021 will be on the exploration of a number of specific use cases in the evaluation of personalisation in information retrieval. Workshop participants will be assigned to a breakout group to work together on the development of a method to address one of the use cases. Each group will seek to identify specific relevant factors relating to their use case in terms of factors including user activities, data to be collected, ethical issues, and evaluation metrics. Groups will share their findings in a final plenary session. The overall goal of the workshop is to work towards developing a general set of principles and guidelines for addressing the evaluation of specific instances of the use of personalisation in information retrieval tasks.

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0900-1100 (SESSION 1) | ROOM C

### Future Conversations

**Johanne Trippas (University of Melbourne), Paul Thomas (Microsoft), Damiano Spina (RMIT University), Hideo Joho (University of Tsukuba)**

The Future Conversations workshop at CHIIR'21 looks to the future of search, recommendation, and information interaction to ask: where are the opportunities for conversational interactions? What do we need to do to get there? Furthermore, who stands to benefit? The workshop will be hands-on and interactive. Rather than a series of technical talks, we are soliciting position statements on opportunities, problems, and solutions in conversational search in all modalities (written, spoken, or multimodal). Each attendee will have the chance to write a position statement, and each statement will be critiqued by another attendee to kick-start the discussion.

## Made to Measure: A Workshop on Human-Centred Metrics for Information Seeking

**George Buchanan (University of Melbourne)**

**Dana McKay (University of Melbourne)**

**Charlie Clarke (University of Waterloo)**

**Leif Azzopardi (Strathclyde University)**

**Johanne Trippas (University of Melbourne)**

Search engines are predominantly made to measure: The key axis of development in over 40 years of information retrieval research has been improvements in precision, recall, click rates and other technical measures of their performance. From the perspective of understanding human and software as two parts of an interactive, work to understand humans and their needs is a vital part of the whole, and yet this is currently not so widely measured. Human effort, experience and behaviour are all vital elements of interactive information work that would similarly benefit from metrickation and measurement.

This workshop aims to understand and diversify what can be measured, and discuss how the measuring might result in real improvements to information interfaces for the human beings that use them. We are interested in search, browsing, serendipity, collection overview, synthesis and any other information work that involves humans working with computers. New, radical and tentative ideas for measurement are all welcome.

## WEPIR 2021

See above.

## BIRDS 2021

See above.

## WEPIR 2021

See above.

## Made to Measure

See above.

## Future Conversations

See above.



## Throughout the conference:

### Poster presentations, demonstrations, and resources

These works will be presented in the “poster booster” sessions on days 1 and 2, and on posters available 24/7 in the poster room. You are welcome to go and look any time!

Robust Visualisation of Dynamic Text Collections: Measuring and Comparing Dimensionality Reduction Algorithms

**Tim Repke (Hasso Plattner Institute, University of Potsdam, Germany, Germany), Ralf Krestel (Hasso Plattner Institute, University of Potsdam, Germany, Germany)**

Break the Loop: Gender Imbalance in Music Recommenders

**Andres Ferraro (Universitat Pompeu Fabra, Spain), Xavier Serra (Universitat Pompeu Fabra, Spain), Christine Bauer (Utrecht University, Netherlands)**

Starting Conversations with Search Engines - Interfaces that Elicit Natural Language Queries

**Andrea Papenmeier (GESIS - Leibniz Institute of the Social Sciences, Germany), Alfred Sliwa (University of Duisburg-Essen, Germany), Dagmar Kern (GESIS - Leibniz Institute of the Social Sciences, Germany), Daniel Hienert (GESIS - Leibniz Institute of the Social Sciences, Germany), Ahmet Aker (University of Duisburg-Essen, Germany), Norbert Fuhr (University of Duisburg-Essen, Germany)**

Classifying Speech Acts using Multi-channel Deep Attention Network for Task-oriented Conversational Search Agents

**Souvick Ghosh (San José State University, USA), Satanu Ghosh (Independent Researcher, India)**

Visually Linked Keywords to Support Exploratory Browsing

**Soumya Shukla (University of Regina, Canada), Orland Hoeber (University of Regina, Canada)**

Impact of Response Latency on User Behaviour in Mobile Web Search

**Ioannis Arapakis (Telefonica Research, Spain), Souneil Park (Telefonica Research, Spain), Martin Pielot (Google, Germany)**

Summary and prejudice: online reading preferences of users with intellectual disability

**Saminda Balasuriya (Queensland University of Technology, Australia), Laurianne Sitbon (Queensland University of Technology, Australia), Jinglan Zhang (Queensland University of Technology, Australia), Khairi Anuar (Queensland University of Technology, Australia)**

Needs for Relatedness: LGBTQ+ Individuals' Information Seeking and Sharing in an Online Community

**Romy Menghao Jia (University of South Australia, Australia), Jia Tina Du (University of South Australia, Australia), Yuxiang Chris Zhao (Nanjing University of Science and Technology, China)**

Visualizing Searcher Gaze Patterns

**Mustafa Abualsaud (University of Waterloo, Canada), Mark Smucker (University of Waterloo, Canada), Charles Clarke (University of Waterloo, Canada)**

The Children's Perspective on How Emojis Help Them to Recognise Relevant Results: Do Actions Speak Louder Than Words?

**Mohammad Aliannejadi (University of Amsterdam, Netherlands), Monica Landoni (Università della Svizzera italiana, Switzerland), Theo Huibers (University of Twente, Netherlands), Emiliana Murgia (Università degli Studi di Milano-Bicocca, Italy), Maria Soledad Pera (PIReT - Dept. of Computer Science, Boise State University, USA)**

Dataset of Natural Language Queries for E-Commerce

**Andrea Papenmeier (GESIS - Leibniz Institute of the Social Sciences, Germany), Alfred Sliwa (University of Duisburg-Essen, Germany), Dagmar Kern (GESIS - Leibniz Institute of the Social Sciences, Germany), Daniel Hienert (GESIS - Leibniz Institute of the Social Sciences, Germany), Ahmet Aker (University of Duisburg-Essen, Germany), Norbert Fuhr (University of Duisburg-Essen, Germany)**

An analysis of information types and cognitive activities involved in cross-session search

**Yuan Li (The University of North Carolina at Chapel Hill, USA), Austin Ward (The University of North Carolina at Chapel Hill, USA), Rob Capra (The University of North Carolina at Chapel Hill, USA)**

Bridging Task Expressions and Search Queries

**Chirag Shah (University of Washington, USA), Ryen White (Microsoft, USA)**

The "Active Search" Hypothesis: How Search Strategies Relate to Creative Learning

**Srishti Palani (University of California, San Diego, USA), Zijian Ding (University of California, San Diego, USA), Stephen Macneil (University of California, San Diego, USA), Steven Dow (University of California, San Diego, USA)**

Different Keystrokes for Different Folks: Visualizing Crowdfunder Querying Behavior

**Rodger Benham (RMIT University, Australia), Joel Mackenzie (The University of Melbourne, Australia), J. Shane Culpepper (RMIT University, Australia), Alistair Moffat (The University of Melbourne, Australia)**

Supporting Cross-Session Cross-Device Search in an Academic Digital Library

**Sebastian Gomes (University of Regina, Canada), Orland Hoeber (University of Regina, Canada)**