



Call for (Extended) Abstracts

2017 Workshop on Hybrid Human-Machine Computing (HHMC 2017): From Human Computation to Social Computing and Beyond

Website: <http://hhmc2017.commando-humans.net/>

Important Dates

Abstract Deadline: **31 May 2017 (extended from 24-May-2017)**
Author Notification: **23 June 2017**
Early Registration: **17 July 2017 (presenters) / 4 September 2017 (non-presenters)**

Introduction

The 2017 Workshop on Hybrid Human-Machine Computing (HHMC 2017) is 2-day workshop, to be held at the [University of Surrey, Guildford](#), UK, on 20 and 21 September, 2017. It is a workshop co-funded by [University of Surrey's Institute for Advanced Studies \(IAS\)](#), a number of other organizations and related research projects.

When we talk about "computing" we often mean computers do something (for humans), but due to the more and more blurred boundary between humans and computers, this old paradigm of "computing" has changed drastically, e.g., in [human computation](#) humans do all or part of the computing (for machines), in [computer-supported cooperative work \(CSCW\)](#) humans are working together with assistance from computers to conduct cooperative work, in [social computing](#) and [computer-mediated communication](#) people's social behaviours are intermingled with computer systems so computing happens with humans and computers at the same time while humans are using computers to live their lives, and for [cyborgs](#) we are talking about human-robot hybrids or robot-human hybrids where the boundary between humans and machines becomes even more blurred. To some extent we see more and more a hybrid human-machine computing (HHMC) world where both humans and machines are working **with** and **for** each other.

The main goals of the workshop include 1) to bring researchers working in different disciplines but with common research interests on HHMC together for exchanging research ideas, and 2) to promote interdisciplinary collaborations and experience sharing between different subjects.

The workshop will also be used as an event to discuss medium- and long-term activities in the UK and internationally on HHMC related research, such as the possibility to set up a UK- and/or a European-wide research network funded by UK and/or EU funders. If successful, the workshop may be continued in future years as a pan-Europe or an international event.

At the workshop participants will be able to present their research work and ideas as oral presentations and posters. To encourage participations, the workshop will call for extended abstracts (up to 800 words) rather than full papers, and there will be a light-weighted peer review process conducted by the workshop's technical program committee to ensure quality of presented work while encouraging less mature work to be discussed among participants. Different types of work can be presented: original research, position papers, surveys, work in progress, research projects and networks, etc. Work already published elsewhere is also encouraged to be presented as posters and/or short (elevator pitch type) talks.

The workshop will also include several invited keynote talks given by renowned UK and international researchers working on different topics of HHMC. There will also be a panel discussion focusing on how to develop the HHMC research community further after the workshop ends.

Topics of Interest

We welcome submissions addressing research problems in the following (but not limited to these) topics related to Hybrid Human-Machine Computing (HHMC):

- Human computation (crowdsourcing, games with a purpose, human interactive proofs, CAPTCHA, mobile sensing, etc.)
- Social computing
- Social media analytics
- Computational social science
- Social simulation
- Computer-mediated communication
- Human-in-the-loop computing (modelling, simulation, optimization, machine learning, data mining, etc.)
- Humans as (part of digital / physical) sensors
- Human-agent collectives
- Computer-assisted arts
- Human-assisted computer arts
- Computer-supported cooperative work (CSCW)
- Collective intelligence
- Social search (e.g., collaborative filtering)
- Cognitive computing, cognitive psychology and cognitive science in general
- Computational behavioral science
- Human-centric computing / Human-oriented computing
- Interactive information visualization / Visual analytics
- Interactive multimedia systems / Quality of user experience / Joint subjective-objective quality assessment
- Human-like computing
- Citizen science
- Brain-computer interface
- Human-robot hybrids / Robot-human hybrids / Cybernetic organisms / Cyborgs
- Humanoid / Humanoid robots / Androids
- Biological robots / Biots
- Social robots
- Related theoretical computer science topics such as Turing tests
- Related philosophical aspects such as definition of intelligence and essential differences between humans and machines
- Ethical issues about HHMC
- Legal aspects of HHMC
- Business opportunities around HHMC
- Industrial innovations around HHMC
- Applications of HHMC in different fields such as physical sciences, engineering, medical sciences, social sciences, humanities

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- Marco Winckler, University Paul Sabatier (Toulouse 3), France
- Qingpeng Zhang, City University of Hong Kong, China

Keynote Speakers (currently confirmed)

- [Professor Manuel Blum](#) (1995 ACM Turing Award) and [Professor Lenore Blum](#), Carnegie Mellon University, USA; [Professor Nigel Gilbert](#), University of Surrey, UK (CBE 2016)

Guidelines for Submissions

If you are interested in participating in this workshop, you need to submit an (extended) abstract up to 800 words. You don't have to use all the 800 words. If you can use less words to clearly describe what you want to present, feel free to do so. All submitted (extended) abstracts will be reviewed by the workshop's technical program committee. You should submit your work electronically through the workshop's online submission website <https://easychair.org/conferences/?conf=hhmc2017>. Please select at least one presentation type for your submission so that the TPC will have more flexibility to define the program. If you want to present an already published work, you should consider update the published paper which will be used as a reference by the TPC to make a decision on your submitted abstract. In other cases, you can also submit a full paper as additional proof of the quality of your work.

Post-Workshop Journal Special Issue and Springer Book

No workshop proceedings will be produced for the conference, but the workshop's [program page](#) will include submitted abstracts and presentations. Selected original work and surveys will be invited for a special issue of the journal [Human Computation](#), following a normal but faster peer-review process. The expected publication date of the special issue is in early 2018. Some selected work may also be invited for chapters of a book to be co-edited by Gerrit van der Veer, Achim Ebert, Nahum Gershon and Peter Dannenmann of IFIP WG 13.7 and to be published by Springer.

Financial Co-Sponsors

- [Institute for Advanced Studies \(IAS\)](#), [University of Surrey](#), UK
- [School of Computer Science and Informatics](#), [Cardiff University](#), UK
- EU H2020 projects [QROWD](#) and [Stars4All](#)
- EU FP7 Marie Curie Initial Training Network [ESSENCE](#)
- Singapore-UK projects [COMMANDO-HUMANS](#) and "[Cyber security solutions for smart traffic control systems](#)"
- [Surrey Centre for Cyber Security \(SCCS\)](#), [University of Surrey](#), UK
- [IBM UK](#)

Technical Co-Sponsors

- [IFIP TC12 – AI](#) and [WG 12.7 – Social Networking Semantics and Collective Intelligence](#)
- [IFIP WG 13.2 – Methodology for User-Centred System Design](#) and [WG 13.7 – Human-Computer Interaction & Visualization](#)
- [IEEE Systems, Man and Cybernetics \(SMC\) Society](#) TCs on [Cognitive Computing](#), [Human-Computer Interaction](#), and [Human Perception in Multimedia Computing](#)
- [ACM SIGCHI UK Chapter](#)
- [Human Computation Institute](#)