

*Academic Excellence and Societal Responsibility*

## Global and Societal Challenges for Computer Science

Panel Discussion with Moshe Vardi (Rice University, USA), Henry Fuchs (University of North Carolina, USA), Christiane Floyd (University of Hamburg / TU Wien) and Hannes Werthner (TU Wien).

Moderation: Margret Childs (Metropole)

Welcome address by Sabine Seidler, Rector of TU Wien

May 8, 2018, 17:30-19:30

TUtheSky, Getreidemarkt 9, 1060 Vienna

### Panellists



**Moshe Vardi** | With over 42,000 citations, Moshe Vardi is one of the most cited computer scientists worldwide. Since 1993, Moshe Vardi has been a professor at Rice University (Texas, USA). He is a leading researcher in the field of logic applications in computer science and plays a leading role in the discussion of the role of computer science in society. The lectures and articles by Moshe Vardi on the implications robotics and artificial intelligence (up to the question of whether intelligent robots are stealing your job) have strongly influenced public discourse. Until 2017, he served as Editor-in-Chief of *Communications of the ACM (CACM)*. Moshe Y. Vardi studied Physics and Computer Science at Bar-Ilan University and at Weizmann Institute. He received his doctorate from the Hebrew University in Jerusalem (Israel). He spent several years in various positions at top institutions such as the Hebrew University, Stanford University and the IBM Research Center in San Jose (USA).



**Henry Fuchs** | Henry Fuchs is one of the leading scientists in the field of virtual and augmented reality, pioneering many of its component technologies since the 1970's, years before there was even a name for the field. He and his team developed headsets that properly combine the real and virtual objects; they pioneered techniques for 'tracking' the headset, determining the position and orientation of the headset in the room with only sensors on the headset and no external apparatus. They developed algorithms and hardware for real-time, realistic image generation of the virtual objects, producing the forerunners of the Graphics Processing Units (GPUs), found today in every computer and mobile device. They also developed trailblazing augmented reality systems that enabled, for example, a doctor to see a tumor inside the patient's body, for more accurate needle biopsies. Fuchs has been widely recognized for his work. He's a Fellow of the ACM and IEEE, recipient of the 2013 Virtual Reality Career Award of the IEEE VGTC, a Fellow of the American Academy of Arts and Sciences, a member of the venerable (US)

National Academy of Engineering and in 2015, he received the highest computer graphics award, the ACM Siggraph's Steven A. Coons Award.



**Christiane Floyd** is professor emerita for software engineering and honorary professor at TU Wien. Floyd obtained her Dr. phil. in Mathematics at the University of Vienna. 1966-68, she co-developed an Algol 60 compiler at Siemens, Munich; 1968-1973 she was research associate and instructor at Stanford University, and 1973-1977 a senior consultant for software development methods at Softlab, Munich. As professor and head of the software engineering group at the Technical University of Berlin (1978-1991) and the University of Hamburg (1991-2008), she was the principal author of STEPS, a participative and evolutionary approach to software development, and explored epistemological foundations for cooperative knowledge projects. Floyd has a strong concern for the responsible use of computing technology. In 1984, she was founding member and first chairperson of Fiff (Forum InformatikerInnen für Frieden und gesellschaftliche Verantwortung), in 2000, dean of the project area Information in the International Women's University. Since 2006 she is committed to promoting the use of information and communication technologies for development in Ethiopia, currently **advising** the project 'Technology Enabled Maternal and Child HealthCare', sponsored by the Austrian Development Agency.



**Hannes Werthner** | Hannes Werthner is Professor of e-commerce at TU Wien (University of Technology Vienna). Since 2016 he is also Dean of the largest Faculty of Informatics in Austria. Hannes Werthner's main fields of research include (personality-based) recommender systems and network analysis. Among other projects, he has masterminded the concept and development of Tiscover, the world's first online platform for tourism. The *Hannes Werthner Tourism and Technology Lifetime Achievement Award*, which has been awarded annually since 2011 by the International Federation for Information Technologies and Travel & Tourism (IFITT) is named after him. In his function as dean of the Faculty of Informatics, Werthner frequently addresses the societal responsibility of universities in public, focusing on the role of Informatics in the process of digital transformation. As dean of the faculty he is initiator and co-founder of the Centre for Informatics and Society (CIS), founded in 2016. CIS promotes interdisciplinary research at the intersection of Computer Science and society and fosters public discourse through workshops, lectures and public events.



**Margaret Childs** | is the CEO of the crossmedia publishing house, Home Town Media, and publisher of the English-language magazine METROPOLE. As the only English-language publisher in Austria, Home Town media creates digital content and print products for companies in the DACH region that seek to reach an international audience. She also offers PR consulting to startups that want to scale internationally and has been on

the board of AustrianStartups since the summer of 2017.