



The Second Global Forum on Development of Computer Science

第二届全球计算机学科发展论坛

Conference Guide

Tsinghua University·Beijing

2021.9.17





PREFACE

WELCOME TO THE SECOND GLOBAL FORUM ON DEVELOPMENT OF COMPUTER SCIENCE

The theme of this global forum is ‘Mission and Responsibilities of Computer Science’, which aims to bring together the Heads/Deans of the top computer science departments/schools and leading computer scientist in both academic and industrial institutes in the world to discuss the trending of computer science, including but not limited to the role of computer science in university development strategy and interdisciplinary opportunities for computer science.

ORGANIZATION

Organizer

The Department of Computer Science and Technology, Tsinghua University

Organizing Committee Chair

Andrew Yao

Xia Yin

Local Chair

Yiqun Liu

Guoliang Li



AGENDA

Theme: Mission and Responsibilities of Computer Science

Host: Andrew Yao

Time	Topic	Speaker
20:00-20:10	Opening Remarks	Andrew Yao Dean, Institute for Interdisciplinary Information Sciences, Tsinghua University
20:10-20:20	Welcome Speech	Bin Yang Vice President, Tsinghua University
20:20-20:30	Opening Address	Yuan Chen
20:30-21:00	Keynote 1: Building the New Schwarzman College of Computing at MIT	Daniel Huttenlocher Inaugural Dean, College of Computing, MIT, US
21:00-21:30	Keynote 2: Computer Science at University 2.0: What the Future Holds and How We Can Shape It	Michael Huth Head, Department of Computing, Imperial College London, UK
21:30-22:00	Keynote 3: Challenges and Opportunities in Computer Science Executive Education	Mohan Kankanhalli Dean, School of Computing, NUS, Singapore
22:00-23:00	Panel: The Role of Computer Science in University Development Strategy	Andrew Yao, Daniel Huttenlocher, Michael Huth, Mohan Kankanhalli, Jun Murai



Speaker (Chair):

Andrew Yao

Dean of Institute for Interdisciplinary Information Sciences, Tsinghua University



Biography:

Professor Yao is Dean of Institute for Interdisciplinary Information Sciences at Tsinghua University. He received a PhD in Physics from Harvard University, and a PhD in Computer Science from the University of Illinois. Professor Yao served on the faculty of MIT, Stanford, UC Berkeley and Princeton University before joining Tsinghua in 2004. He received the Turing Award in 2000 and Kyoto Prize in 2021. At Tsinghua, Professor Yao founded an elite undergraduate CS program (‘Yao Class’) in 2005, an AI program (‘Zhi Class’) in 2019 and a quantum information program in 2021. Professor Yao is a member of the Chinese Academy of Sciences, and foreign member of the US Academy of Sciences.



Title:

**Challenges and Opportunities in Computer Science
Executive Education**

Speaker:

Daniel Huttenlocher

Dean, MIT Schwarzman College of Computing, MIT



Abstract:

The MIT Stephen A. Schwarzman College of Computing was founded to lead the transformation of education and research in this time of rapid advances in computing and its increasing influence on so many aspects of daily life. Launched in 2019, the College represents the first major structural change at MIT in three-quarters of a century. The mission of the College is three-fold: to support the rapid growth and evolution of computer science, artificial intelligence and related computing fields; to facilitate collaborations in computing education and research across departments and disciplines; and to focus on social and ethical responsibilities of computing. Together, these are critically important in meeting the opportunities and challenges posed by today's and tomorrow's computing technologies.

Recognizing that computing fields are evolving beyond current institutional structures, the College is leveraging existing resources, creating and revising academic programs, facilitating research activities, and creating new activities that cross disciplinary boundaries, and hiring outstanding new faculty. Above all, the Schwarzman College of Computing is positioning students, faculty, and researchers at MIT to understand computing and its societal context and to be able to advance computing and its applications in every domain.



Biography:

Daniel Huttenlocher, the inaugural dean of the MIT Schwarzman College of Computing, came to MIT following a distinguished career at Cornell University, where he was recognized for his outstanding teaching through multiple awards: the New York State Professor of the Year award, a Stephen H. Weiss Presidential Fellow award (Cornell's highest teaching honor), the Faculty of the Year award from Cornell's Association of Computer Science Undergraduates, and other Outstanding Educator awards.

Huttenlocher joined the Cornell faculty in 1988, becoming a professor of computer science, Dean of Computing and Information Science, and, most recently, the Inaugural Dean and Vice Provost at Cornell Tech. He co-led a startup Intelligent Markets in the early 2000s and held a concurrent industry appointment at Xerox Parc during the 1990s.

Huttenlocher's internationally recognized research focuses on computer vision and image processing. He also made early important contributions to the then-nascent field of social networks, media and social computing. His research has been recognized by several awards including the Longuet-Higgins Award for Fundamental Advances in Computer Vision, ACM Fellow, and other fellowships and awards from ACM, IEEE, and Phi Beta Kappa. Huttenlocher received a bachelor's degree from the University of Michigan and master's and PhD degrees from the Department of Electrical Engineering and Computer Science at MIT.



Title:

Computer Science at University 2.0: What the Future Holds and How We Can Shape It

Speaker:

Michael Huth

Head of Department of Computing, Imperial College
London



Abstract:

Computer Science is gaining strategic importance through global digitization. Data Science, AI, and Machine Learning play a big part in this and create huge demand for skills training, research, and development - comparable to what happened for Cybersecurity 10-15 years ago. Our discipline produces innovations at record pace. These innovations also change how we educate, research, and transfer insights into practice. This creates tremendous opportunities and but also produces challenges for Computer Science departments. We discuss this strategic space by reflecting on some initiatives in our department and at Imperial College London, particularly around I-X -- a new collaborative environment for research, education, and entrepreneurship across artificial intelligence, data science, and digital technologies.

Biography:

Michael Huth is Head of Department Computing at Imperial College London and Co-founder and Chief Research Officer at Xayn, a private search and discovery browser with personalized AI that users control. His research focuses on Cybersecurity, Cryptography, Mathematical Modelling, as well as Security and Privacy in Machine Learning. Professor Huth studied Mathematics at the Technical University of Darmstadt (Germany), received his PhD from the Tulane University of Louisiana (USA), and held positions in the US, and Germany before joining Imperial College London in 2001. Since 2020, he provides leadership across Education, Research, Transfer, and Innovation to prepare his department for the future of Computing in 2030+.



Title:

Challenges and Opportunities in Computer Science Executive Education

Speaker:

Mohan Kankanhalli

School of Computing, National University of Singapore



Abstract:

Computing is fundamentally transforming all aspects of our society. Given this diffusion of computing in all sectors of the economy, business leaders need to gain a deeper understanding of technology. As a result, there is an emerging demand for executive education related to Computer Science. Executive education has traditionally been the prerogative of Business Schools but they do not possess the necessary technological expertise. On the other hand, Computing schools are very new at this. By sharing some of the initial experiences at NUS School of Computing, we will outline challenges and opportunities in CS executive education.

Biography:

Mohan Kankanhalli is Provost's Chair Professor of Computer Science at the National University of Singapore (NUS). He is also the Dean of NUS School of Computing. Before becoming the Dean in July 2016, he was the NUS Vice Provost (Graduate Education) during 2014-2016 and Associate Provost during 2011-2013. Mohan obtained his BTech from IIT Kharagpur and MS & PhD from the Rensselaer Polytechnic Institute.

His current research interests are in Multimedia Computing, Information Security & Privacy, Image/Video Processing and Social Media Analysis. He directs N-CRiPT (NUS Centre for Research in Privacy Technologies) which conducts research on privacy along the entire data life cycle. He is on the editorial boards of several journals including the ACM Transactions on Multimedia, Springer Multimedia Systems Journal, IEEE Multimedia and Springer Journal of Big Data. He is a Fellow of IEEE.



Panel Speaker:

Jun Murai

Distinguished Professor, Keio University



Biography:

Jun Murai received his Ph.D. in Computer Science, Keio University in 1987, majored in Computer Science, the Internet and Computer Communication. He established JUNET, the first network in Japan connecting multiple universities, in 1984. In 1988, established the WIDE Project, a Japanese Internet research consortium. Has long been engaged in research related to Internet technology platforms, and is known as the "Father of the Internet in Japan" and in international circles as the "Internet Samurai".

He serves on many other governmental committees in Japan, and is active in numerous international scientific associations.

He was inducted into 2011 IEEE Internet Award / the 2013 Internet Hall of Fame (Pioneer) / 2019 the Knight of the Legion of Honor by the French Government / 2020 The NEC C&C Prize.

