

ITU KALEIDOSCOPE

NANJING 2017

Challenges for a data-driven society

27-29 November
Nanjing, China

Call for papers

Kaleidoscope 2017: Challenges for a data-driven society is the ninth in a series of peer-reviewed academic conferences organized by ITU to bring together a wide range of views from universities, industry and research institutions. The aim of the Kaleidoscope conferences is to identify emerging developments in information and communication technologies (ICTs) and, in particular, areas in need of international standards to aid the healthy development of the Information Society.

Theme

More data have been produced over the last two years than over the entire previous history of humanity. The volume of data that networks transport continues to soar to previously unimaginable heights. Emerging technological developments, specifically smart applications (e.g. smart cities and the smart grid) and the Internet of Things (IoT), will further fuel this trend.

This exponential growth and availability of data, along with enhanced collecting, processing and analytics capabilities, have opened up new frontiers in sustainable development. But globally accepted standards are needed to avoid the development of incompatible data silos and to establish a universal, shared and integrated data ecosystem that allows the deployment of the accumulated data in a highly secure environment, for the benefit of all.

The questions that need to be answered in this context include, among many others:

- Which technical challenges need to be overcome to encourage data portability, to share and aggregate data and to eventually enable interoperability of different data ecosystems?
- What are the legal frameworks required to build a universal, shared and integrated data ecosystem?
- What are the technological advances required to make sense of the immense volume of data available?
- What type of standards are needed for the analysis of the data and the interpretation of results?
- Are (telecommunication/ICT) standards organizations qualified to address the problems associated with data production, dissemination and storage?
- What are the synergies, if any, between the industry's view of data as a source of competitive advantage and the public sector's view of data as a public good?
- How can end-users receive equitable value in return for generating data?
- How can standards and regulation protect individual users' data across multiple organizational and geographic boundaries? How can trust be established in the provided level of protection?

Objective

Kaleidoscope 2017 calls for original academic papers that offer innovative and bold approaches relevant to technology, business and policy aspects of data management and analysis and encourage the development of applications and services building on data technologies to improve society.

Audience

Kaleidoscope 2017 targets specialists in the fields of ICT and socio-economic development, including researchers, academics, students, engineers, policymakers, regulators, innovators and futurists.

Date and venue

27-29 November 2017, Shangri-La Hotel, Nanjing, China

Submission of papers

Prospective authors from ITU Member States are invited to submit full, original papers. The submission should be within eight pages, including a summary and references, using the template available on the event website. All papers will go through a double-blind peer-review process. Submission must be made electronically; see <http://itu.int/go/K-2017> for more details on online submission (EDAS). Paper proposals will be evaluated according to content, originality, clarity, relevance to the conference's theme and, in particular, **significance to future standards**.

Deadlines *extended*

Submission of full paper proposals: **10 July 2017**

Notification of paper acceptance: **18 September 2017**

Submission of camera-ready accepted papers: **6 October 2017**

Publication and presentation

Accepted and presented papers will be published in the Conference Proceedings and submitted for inclusion in IEEE *Xplore* Digital Library. The best papers will also be evaluated for potential publication in IEEE Communications Standards Magazine. In addition, extended versions of selected papers will be considered for publication in the International Journal of Technology Marketing, the International Journal of Standardization Research, or the Journal of ICT Standardization.

Awards

A prize fund totaling CHF 6,000 will be shared among the authors of the three best papers, as judged by the Steering and Technical Programme Committees. In addition, young authors of up to 30 years of age presenting accepted papers will receive Young Author Recognition certificates.

Suggested (non-exclusive) list of topics

Track 1:

Network infrastructure and architecture for data

- Network architecture design, data-driven networking
- Distributed systems, parallel and distributed computing
- Cloud computing techniques for data management
- Data in mobile and pervasive computing
- Data migration and backup
- Data synchronization
- Access control
- Trusted computing, network security and privacy
- Network performance analysis
- Requirements for data storage and exchange
- Functional architecture for big data as a service (DaaS)
- Requirements for data quality and provenance
- Requirements for open data platforms
- Wireless sensor and actuator networks
- Energy efficient, sustainable power management

Track 2:

Data applications and services

- Data retrieval, processing, analysis, and analytics
- Data semantics, interoperability, search and mining
- E-services
- Internet of Things (IoT)
- Data as a service (DaaS)
- Data for industry, government and society
- Data for smart sustainable cities
- Data for research, science and technology

Track 3:

Social, economic, legal, policy and environmental aspects of standards for data access, use and management

- Data standardization, policies and regulation
- Legal aspects of standards and standardization
- Standardization management and strategies
- Data ownership models, open data licensing
- Business models for data and open data
- Inclusiveness, affordability and access to data
- Security and privacy issues
- Green, energy-efficient models and sustainability issues for data
- Open data for education, research and public good

In co-operation with SIIT2017

Keywords

Information and communication technologies (ICTs), standards, standardization, technological innovation, information society, converging technologies, big data, analytics, data mining, database, open data platform, cloud computing, ubiquitous networks, internet of things, e-applications, trustworthiness, security, privacy, reliability, smart grid, mobile banking services, radio spectrum, sustainability, development, access, equality, inclusiveness.

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The list of Technical Programme Committee members is available at:

<http://itu.int/en/ITU-T/academia/kaleidoscope/2017/Pages/progcom.aspx>.

Additional information

For additional information, please visit the conference website: <http://itu.int/go/K-2017>.

Inquiries should be addressed to:

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