



## General Secretariat (SG)

Geneva, 15 March 2017

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**TSB/AM**

- To Administrations of ITU Member States;
- To ITU Sector Members, Associates, Academia and relevant international, regional and national organizations

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Subject: **ITU Kaleidoscope 2017 “Challenges for a data-driven society”  
Nanjing, China, 27-29 November 2017**

Dear Sir/Madam,

1 As part of the Kaleidoscope events, an ITU initiative to increase cooperation with academia and research institutions, I am pleased to inform you about the ninth in a series of forward looking academic conferences that aim at identifying emerging developments in information and communication technologies (ICTs) and, in particular, areas in need of international standards to support the development of successful products and services. Kaleidoscope 2017 “Challenges for a data-driven society”, kindly supported by the Ministry of Industry and Information Technology (MIIT) and hosted by Nanjing University of Posts and Telecommunications (NUPT), will take place at Shangri-La Hotel in Nanjing, China, from 27 to 29 November 2017.

2 The 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.

3 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. The full text of the call for papers may be found in **Annex 1**. It invites submissions by **19 June 2017**.

4 Participation is open to ITU Member States, Sector Members, Associates and Academic Institutions and to any individual from a country which is a member of ITU who wishes to contribute to the work. This includes individuals who are also members of international, regional and national organizations. The event is free of charge but no fellowships will be granted.

5 We encourage all ITU members to promote this event within the academic community of their countries.

6 Detailed information concerning registration and logistics will be available on the event's webpage, <http://itu.int/go/K-2017>, closer to the date of the conference. **Please note that pre-registration of participants for this event will be carried out exclusively *online*.**

7 We would remind you that citizens of some countries are required to obtain a visa in order to enter and spend time in China. Where this is the case, the visa must be requested and obtained from the office (embassy or consulate) representing China in your country or, if there is no such office in your country, from the one that is closest to the country of departure. Participants who need support from the host country to obtain an entry visa are requested to check the Kaleidoscope webpage at <http://itu.int/go/K-2017>. Information will be published as soon as available.

Yours sincerely,

*[signed]*

Houlin Zhao  
Secretary-General

**Annex: 1**

ANNEX 1  
(to CL-17/08)

**Challenges for a data-driven society**

The 9<sup>th</sup> ITU Kaleidoscope academic conference  
Nanjing, China, 27-29 November 2017

**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

Submission of full paper proposals: **19 June 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. 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

The Steering and Technical Programme Committees will award the authors of the three best papers. In addition, young authors of up to 30 years of age presenting accepted papers will receive Young Author Recognition certificates.

## 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.

## Suggested (non-exclusive) list of topics

<b>Track 1:</b> <b>Network infrastructure and architecture for data</b>	<ul style="list-style-type: none"><li>• Network architecture design, data-driven networking</li><li>• Distributed systems, parallel and distributed computing</li><li>• Cloud computing techniques for data management</li><li>• Data in mobile and pervasive computing</li><li>• Data migration and backup</li><li>• Data synchronization</li><li>• Access control</li><li>• Trusted computing, network security and privacy</li><li>• Network performance analysis</li><li>• Requirements for data storage and exchange</li><li>• Functional architecture for big data as a service (DaaS)</li><li>• Requirements for data quality and provenance</li><li>• Requirements for open data platforms</li><li>• Wireless sensor and actuator networks</li><li>• Energy efficient, sustainable power management</li></ul>
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<b>Track 2:</b> <b>Data applications and services</b>	<ul style="list-style-type: none"><li>• Data retrieval, processing, analysis, and analytics</li><li>• Data semantics, interoperability, search and mining</li><li>• E-services</li><li>• Internet of Things (IoT)</li><li>• Data as a service (DaaS)</li><li>• Data for industry, government and society</li><li>• Data for smart sustainable cities</li><li>• Data for research, science and technology</li></ul>
<b>Track 3:</b> <b>Social, economic, environmental and policy aspects of data access and management</b>	<ul style="list-style-type: none"><li>• Data standardization and regulation</li><li>• Data ownership models, open data licensing</li><li>• Business models for data and open data</li><li>• Inclusiveness, affordability and access to data</li><li>• Security and privacy issues</li><li>• Digital rights and identity management</li><li>• Green, energy-efficient models and sustainability issues for data</li><li>• Open data for education, research and public good</li></ul>

**General Chairman**

Zhen Yang (President of Nanjing University of Posts and Telecommunications, China)

**Steering Committee**

Christoph Dosch (ITU-R Study Group 6 Vice-Chairman; IRT GmbH, Germany)

Kai Jakobs (RWTH Aachen University, Germany)

Mitsuji Matsumoto (Waseda University, Japan)

Mostafa Hashem Sherif (AT&T, USA)

**Host Committee**

Chairman: Guo-Ping Jiang (Vice President of Nanjing University of Posts and Telecommunications, China)

**Technical Programme Committee**

Chairman: Kai Jakobs (RWTH Aachen University, Germany)

The list of Technical Programme Committee members will be available shortly 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 [kaleidoscope@itu.int](mailto:kaleidoscope@itu.int).

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