Data, in today’s world, has the potential to deliver more cutting edge, citizen-centric public services, and bring automation and intelligence to industry while addressing the greatest challenges to human health and environment. With the amounts of data being produced by individuals and society today, the boundaries on research, sustainable development and the economy are being pushed back further and new ways for human and machine activity are being unlocked.

The opportunities brought about by the rapid growth of data are, however, coupled with concern. Questions surrounding the privacy and security of data, how data is generated, labelled and collected and whether or not the data at our disposal can be trusted, all represent crucial issues in the discussion on data governance and societal advancement. The policy, regulatory, legal and ethical aspects are as pertinent to the discussion, adding a deeper dimension to the dialogue.

The second special issue of the ITU Journal will share insight into the increasing sophistication of the techniques used to exchange and understand data, while also exploring how data can safely fuel more autonomous, human-centric information and communication technologies.

Keywords
Information and communication technologies (ICTs), standards, standardization, technological innovation, information society, converging technologies, big data, data formats, 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.

Deadlines
Paper submission: 30 July 2018 - extended
Paper acceptance notification: 10 September 2018

Paper submission
This special issue calls for original scientific papers. Submitted papers should not be under consideration for publication elsewhere. Submissions must be made electronically using EDAS: Editor’s Assistant. Templates and guidelines can be found at: https://itu.int/en/journal/002/Pages/default.aspx

Publication
As soon as they get accepted, papers will be continuously published on the ITU digital library. They will then be bundled in a yearly volume.

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### Suggested topics (but not limited to):  

#### Data enabled infrastructures, networking and computing
- Infrastructures and architectures for data-driven networking
- Distributed systems, parallel and distributed computing
- Mechanisms and protocols for data processing and management
- Cloud computing techniques and capabilities for data management as a service (DMaaS) and Big Data as a service (BDaaS)
- Data in mobile and pervasive computing
- Data synchronization, migration, and backup
- Control and management of data mining, access, acquisition, and storage
- Trusted data-driven computing, security, and privacy
- Use of blockchain for trustworthy data processing and management
- Data driven autonomous analysis of network and service performance
- Enhancing capacity and capability for data storage and exchange
- Platforms for open data
- Data processing and management to/from wireless sensors and actuators in IoTs and networks
- Data-driven energy efficient, sustainable power management

#### Data applications and services
- Data retrieval, processing, analysis, and analytics
- Data semantics, interoperability, and search
- Data quality and provenance
- Data formats for integrated and consolidated realization of “Data as Oil (DaO)”
- Data tailoring for various e-services (e-education, farming, health, shopping, etc)
- Quality and trust of Data (QoD and ToD) for trade, industry, government, and society
- Data for smart sustainable cities and the urban environment
- Data for research, science, and technology
- Data and human interaction

#### Social, economic, legal, policy and environmental aspects for data access, use and management
- Data standardization, policies, and regulation, data governance
- Legal aspects of data standards and standardization
- Standardization management and strategies for data-driven industry and society
- Data ownership models, open data licensing
- Business models for data and open data
- Ecosystem of data production, distribution, and utilization
- Management of data-centric innovation
- Marketing of innovations in the data economy including commercialization and monetization
- Inclusiveness, affordability, and access to data
- Societal issues on trustworthy data, security, and privacy
- Green, energy-efficient models and sustainability issues for data
- Open data for public good

### Additional information:
Please visit the ITU Journal website at: [https://itu.int/en/journal/Pages/default.aspx](https://itu.int/en/journal/Pages/default.aspx)
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