CALL FOR PAPERS

DG.O2020: The 21st Annual International Conference on Digital Government Research

Theme: Intelligent Government in the Intelligent Information Society

Graduate School of Public Administration Seoul National University June 17-19, 2020

http://dgsoc.org/dgo-2020/

#dqo2020

The Digital Government Society (DGS) announces the 21st Annual International Conference on Digital Government Research - dg.o 2020, with a theme "Intelligent Government in the Intelligent Information Society". dg.o 2020 will be hosted by the Graduate School of Public Administration, Seoul National University, Seoul, Republic of Korea on June 17-19, 2020. The dg.o conferences are an established forum for presentation, discussion, and demonstration of interdisciplinary research on digital government, political participation, civic engagement, technology innovation, applications, and practice. Each year the conference brings together scholars recognized for the interdisciplinary and innovative nature of their work, their contributions to theory (rigor) and practice (relevance), their focus on important and timely topics and the quality of their writing.

THEMES AND TRACK TOPICS

The 21st Annual International Conference on Digital Government Research will feature the main theme of "Intelligent Government in the Intelligent Information Society". The advent of the intelligent information society will introduce new technologies that combine artificial intelligence (AI) with Internet of Things, cloud computing, and big data. Along with the development of such intelligent information technologies, governments will increasingly face unprecedented challenges and complex problems in all areas of the society.

This conference will focus on the role and capacity building of government and the new governance that would be required to timely address the challenges and opportunities that are brought by the new technologies and also to construct a trust-based society by achieving sustainable development in the intelligent information society.

Specifically, we will propose capacity building activities in government and discuss the government's role in addressing the digital divide and social inequality, resulting from the aforementioned technological advancements, and in providing user-friendly public services that are based on big data analysis. Moreover, we intend to discuss the implications of private and public partnerships on new governance in the information society. In this endeavor, the event will embrace discussions on both theoretical frameworks and practical applications that deal with the government and related issues at the local, regional, and global level.

Track 1. Social Media and Government

Chairs: Andrea Kavanaugh and Rodrigo Sandoval-Almazan

Governments and constituents have been using social media and associated affordances to broadcast information, promote perspectives and policies, share ideas, and to garner (or sometimes disrupt) support for collective action. For this year's theme "Intelligent Government for the Intelligent

Information Society" we especially welcome papers related to machine learning, big data, and related analytics that can support smart government practice and design for civic engagement.

The more routine use of social media has created new challenges for all users, including continuous changes in technology and platforms, bigger and more complex data, regulations and policies, and government's capacity to capture and accommodate more diverse perspectives and feedback. With the more pervasive use of social media by governments and constituents also comes the expectation that government will respond rapidly and meaningfully to posts, comments, likes, images. Being responsive may require news skills (technical, legal, social) in house or outsourced. Analysis of communication behavior, messages, systems and institutions, should help to increase our knowledge and understanding of the ways that these media are affecting collective problem solving and public policy development and service delivery.

This track addresses a range of similar or related research questions, topics and practices regarding social media, and the analysis of content, metrics, case studies or theoretical models to advance this area of research. We welcome research and practice papers on such new topics as fake news, ethics, e-profiling from a governance perspective, and links between citizen and government use of social media and big data.

Track 2: Organizational Factors, Adoption Issues and Digital Government Impacts Chairs: Jing Zhang, Lei Zheng, Chris Hinnant

To build intelligent government and intelligent society, public organizations employ advanced information and communication technologies (ICTs) to facilitate communication and transactions with many stakeholders such as residents, private sector businesses, non-profit organizations, and other government agencies. The adoption and implementation of new ICTs by public organizations is influenced by organizational factors such as the availability of resources (i.e. funding, infrastructure, technological knowledge, and personnel), leadership, trust, stakeholder involvement, organization's structure and culture, as well as inter-organizational dynamics if the initiative cut across multiple organizations. Similarly, the adoption of ICTs in government and society has generated important impacts on the organizational processes, effectiveness, and innovativeness of public organizations, as well as the smartness of the government and the society. In this context, this track solicits research that examines the organizational factors that influence the adoption and implementation, and impact of new and emerging innovative technologies such as smart governance, artificial intelligence, open data, social media, citizen-centric technologies, and other novel technologies that rely on open and large data sets. Furthermore, this track seeks research on the adoption of innovative policies or practices that seek to facilitate the strategic use of various ICTs by public organizations.

Track 3: Smart Cities: Intelligent Innovation and Transformation

Chairs: Leonidas Anthopoulos, Wookjoon Sung, Soon Ae Chun

Data and technologies drive cities to innovate and transform not only the economic productions and activities, but also citizen expectations in terms of information, services, governance participation. The cities around the globe are adopting cutting edge technologies in their attempts to enhance their efficiency, their competitiveness and the local quality of life. Industry 4.0 technologies, IoT, AI, 5G-readiness and big open data are only some of the key infrastructure that cities deploy, while digital skills and extensive collaboration among the city stakeholders are key-elements that are being utilized for the digital transformation and for the smart governance of the local digital ecosystem.

This track invites research and practices in smart cities that describes smart cities development strategies, policy models, citizen engagement, and technology innovations. Topics include but not limited to industry 4.0 technologies for smart cities, mobility, energy, health, education, public safety, structures, natural environment, and business, as well as related issues of cybersecurity and privacy, community-based infrastructure resilience, urban informatics and governance. Specific interest areas include smart governance and smart city governance, smart city infrastructure and standards, applications and collaborations based on the "internet of things"; Smart sensors; Big data analytics; The Civic Technology Movement, and Intercity and intergovernmental collaborations; International cooperation and the spread of smart cities; Machine learning, AI, Blockchain and Robotics for cities and governments.

Track 4: Ethical Approaches to Intelligent Government: Strategies and Implementation

Chairs: Robert J. Domanski, Teresa M. Harrison, Evgeny Styrin

As digital government evolves in the direction of intelligent government, computationally "intelligent" systems are rapidly being integrated into numerous facets of public policy and management. These technologies - including artificial intelligence, machine learning, facial recognition, natural language processing, and predictive analytics - have the potential to yield great benefits, but pose substantial challenges to privacy, autonomy, governance, equity, and fairness. In this track, we invite scholarly papers that explore the ethics of computational strategies in digital and intelligent government. The track's objectives are to 1) identify real-world examples/cases of real or potential ethical problems, 2) seek to place such cases in the context of existing ethical frameworks for analysis, 3) create actionable recommendations for researchers, professional developers, and digital government practitioners, and finally, 4) institutionalize recommendations in digital government research and practice.

Possible topics include but not limited to: Responsible uses of AI, machine learning, facial recognition, robotic process automation, and related technologies as strategies in government contexts; Ethical guidelines for digital government practice and research; Ethical challenges posed by enumeration, one-stop, and other government IT programs; Creating a culture of ethics in digital governance; Assessing data for fitness in use; Issues in integrating data sets; Impacts of AI, IT, and other computing strategies on citizens' experience of government; Values in digital government practice and research; Conflict resolution in public intelligent systems practices and implementation.

Track 5: Beyond Bureaucracy: Progressing Governance through Disruptive Innovation Chairs: Alois Paulin, Adeyinka Adewale, Zach Bastick

The "Beyond Bureaucracy" track aims to outline and discuss challenges along the boundaries of society, technology, and governance, which reach beyond established e-governance and e-democracy research paths and priorities. Where well-established research ambitions in fields such as e-government, e-governance, or e-democracy focus on providing and/or studying technology that supports the work and mission of government agencies and governmental or political agents, "Beyond Bureaucracy" addresses the question on how technology can empower citizens and the conceptual sovereign-body to *actively control* (rather than passively observe) public-domain agencies and -agents. The Beyond Bureaucracy track aims to outline the pending technological (design science)

challenges, promotes the *economic potentials* of new technological ecosystems, discusses ethical implications of existing and potential future models of public governance, and serves as a platform for pro/contra deliberations on Beyond Bureaucracy thought and knowledge.

Track 6: Open Government Data – Maturity and Sustainability

Chairs: Tobias Siebenlist, Christine Meschede

Maturity and sustainability promote each other. An Intelligent Information Society benefits from Intelligent Government and vice versa. Open Government Data and its usage to create information and knowledge is a viable factor for an intelligent Information Society. As thus it builds a foundation for transparency and participation and a foundation for the creation of information services for citizens. In the area of analysis of open data sets, artificial intelligence, which requires reliable data to function, can be used to make predictions about future developments and usage patterns. The importance of these factors and their different manifestations is increasing as more and more open data sets are published, new portals are set up, services and applications are developed based on or with regard to the data sets, and existing solutions are maturing. The diversity of both factors facilitates a broad range of aspects that can be covered within this track. Another perspective is the usage of Open Government Data for sustainable development. The United Nations adopted the Sustainable Development Goals (SDGs) in 2015, which consist of 17 specific goals to end poverty, protect the planet and ensure prosperity for all. Open Government Data can be used to measure the progress of achieving the goals on different administrative levels and to create value added services related to the SDGs. In particular, by providing open data, it is also possible to calculate the progress of the SDG objectives at urban and municipal level.

Track 7: Artificial Intelligence for Innovating Smart and Open Governments

Chairs: Sehl Mellouli, Adegboyega Ojo, Marijn Janssen

Artificial intelligence (AI) represents a new research trend for Governments which has the potential to affect every aspect of government. It brings new techniques and tools such as: machine learning, natural language processing, or robotics and that can be applied in different domains for example transport, healthcare, security, or energy. AI innovation is already transforming the way governments operate, make decisions, and deliver public services. For this, we should take steps to ensure this is done in a more effective and transparent way that reassures citizens that these systems will produce fair outcomes, as well as higher quality services. Governments are not only looking at the applications of AI but also at the impacts that AI can on different levels of governments including both the frontoffice and the back-office. The purpose of this track is to investigate how AI can be used in all aspects of governments and how it will result in a smarter and open government. The track will also examine fundamental changes in practice and new research on approaches and mechanisms necessary for fostering AI innovation and implementation by governments for a greater transparency, accountability, service delivery, and citizen's trust. The topics of this track are, but not limited to: AI adoption and acceptance in governments, AI for improving policy making and participation, Legal issues related to AI, AI and data in governments, AI and security in governments, Openness, transparency and accountability of algorithms, AI impacts on IT teams in governments, AI maturity models for governments, Bots for governments.

Track 8: Governance of Technologies and Data in Social Innovations

Chairs: Loni Hagen, Iryna Susha, Efthimios Tambouris

We have recently observed various social innovations that cross traditional business boundaries or extend beyond social practices through technologies and data. For example, Uber experimented with a courier service that delivered luggage on-demand in some cities like New York. Civic hackathons emerged as a viable solution for problem-solving in local governments in several U.S. cities, such as Las Vegas and St. Louis. Several big data or computational modeling projects have been initiated on the globe. While they are innovative and promising, critical problems surrounding algorithms, data, and intelligent machines have not been examined thoroughly or discussed in scientific or policy communities. These advancements often have outpaced the way they need to be governed and what policy frameworks must be in place for their desired use. Governments tend to respond to these developments reactively and struggle to find the right balance between regulation (or encouragement) and innovation. This track calls for papers that address the governance and policy issues of, or frameworks for, technologies and data that are associated with various social innovations. We welcome empirical and conceptual studies that define the social innovation of the author's interest in a specific context clearly and provide solid analysis, evidence, and discussion of policy issues or implications for government decision-making.

Track 9: Artificial Intelligence Challenges and Implications for Public Management and Policy Chairs: Michael Ahn, Yu-Che Chen, Albert Meijer

"Artificial Intelligence Challenges and Implications for Public Management and Policy" and Algorithm-based decision-making are expected to dramatically transform our government into a new and intelligent form of institutional arrangement. For this track, the development and the key attributes of the emerging AI technologies and their implications are best contextualized in the broader history of public administration. In that context, AI technologies as an instrument of decision-making could transform or replace/complement traditional government bureaucracy. Moreover, this track seeks to elucidate the meaning as well as policy and management implications in the evolution of digital government. For instance, this track aims to examine the key attributes of AI technologies that distinguish them from other Information and Communication Technologies (ICTs) and their impacts on government data collection, decision making, and policy implementation. In addition, this track invites insights into the identification of the key challenges to government brought by AI and their potential policy solutions. This track welcomes research papers as well as management and case study papers that address any of its focal areas.

Track 10: Data-driven Society: Balancing Prosperity and Security

Chairs: Hun-Yeong Kwon, Ki-Yeong Min, Michael Reiterer

Today's society is largely driven by data. In the global market the capacity to use data has become a power force. Governments of many countries have already recognized the value of data and are competing against each other to gain the upper hand. However, it is also true that data has been the major cause of privacy breaches, as it is so easy to process information easily and quickly using data. Of equal consequence, concerns over security in information systems, services and networks that contain and transmit such data need to be addressed. Uncertainty arising from the complexities of a data-driven society is bringing new challenges and threats not only to ordinary citizens but also to governments. In this sense, this track is seeking to solicit theoretical research papers and case studies on law and policies on data and personal information protection, privacy, information security, cyber security, etc. This track will address these issues from a multi-disciplinary perspective such as legal,

policy, ethics, politics, public administration, computer engineering. Topics include, but are not limited to: Data Policy, Evidence Based Policy, Personal Information Protection, Privacy, Information Security, Cyber Security, Security Policies, Public Sector Efforts for Data Society, Data Industry Challenges by Private Companies, Artificial Intelligence, Legal Informatics etc.

Track 11: Development and Measurement of Intelligent Government Index

Chairs: Choong-sik Chung, Dongwook Kim

Various types of E-government related index including UN Digital Government Development Index, E-participation Index, and Smart City index have been developed and utilized in the corporate and industrial sectors. The development of these indexes has been based on electronic services and their scope of application, and it facilitates to measure the performance and levels of advancement in different digital government projects and to conduct comparative scoring of governments. On the other hand, the development of an intelligentization index that covers the entire scope of making governments intelligent, which includes indicators such as the use of IoT, Cloud computing, Big-data analytics and AI utilization, has not been actively discussed and implemented yet.

This track aims to address two important issues that can be applied to both public and private sector. First, this track intends to address the conceptual frameworks of intelligent governments that go beyond existing E-government digitalizations and other related indices. Second, this track aims to discuss and develop the key indicators that comprise an index, and the issue of measurability associated with key indicators. Topics include, but are not limited to, development of E-government, E-Participation and smart city related indexes, intelligentization and competitiveness index, development of digitalization index in central or local government, service or process intelligentization index, conceptual frameworks and validations of the intelligentization index, AI utilization index in government, measurement methods and reliability issues of evaluation methods.

Track 12: Open Data for Sustainable Development Goals

Chairs: Kyung Ryul Park, Carla Bonina

Open data have been recognized as a key component of digital intelligence governance. However, the benefits of emerging digital technologies and data revolution are found to be unevenly distributed, diverse socio-political issues including digital inequalities, lack of citizen engagement, information capability, and data and statistical literacy need to be addressed.

This track focuses on the role and impacts of data revolution and digital intelligence governance in achieving UN sustainable development goals (SDGs). It will investigate new forms of power dynamic and policy challenges that data revolution creates and how extant digital governance theories can be applied to make sense of it. We invite diverse research methodologies including a cross-national analysis, a theory-driven research, as well as in-depth interpretive case study directly related to each seventeen SDGs goals, but are not limited to:

Monitoring and evaluation of SDGs; Global digital governance in SDGs data and indicator; The political economy of open data and power dynamics in digital governance; Critical approach to the concept of open data and the theoretical links between open data, digital governance and sustainable development; How national and international open data policy address the UN Sustainable Development Goals; How academia, media, citizens and civil society organizations to use open data for sustainable development and hold their leaders accountable for their actions; What are the statistical, technical and information systems challenge in using open data for SDGs; What are the institutional, legal, coordination challenge and cultural resistance in maximizing the benefit of open data in sustainable development.

Track 13: Innovation of Public Service Design and Delivery in an Era of Intelligent Government

Chairs: Kwangho Jung and Hyunsub Kum

Government faces an increasing burden and demands for smart digital process, innovative policies and services. Rapid ICT advancements and ICT democratization have created new opportunities for creative solutions for many areas in public and private sectors and enhanced efficiency, reliability, transparency and accountability. To make the innovation work, government faces a multifaceted network that involves network-based collaboration among many stakeholders, including federal government, state governments, private vendors, retail merchants, and citizens who are affected by the innovations, as seen in the U.S. Electronic Benefit Transfers (EBT) system. Smart governance is required to facilitate the innovative service and policy designs, to implement them effectively across organizational and cultural boundaries, and to manage network efficiency, security, privacy, and equity issues.

This track is to explore (1) how government initiates, implements and adopts public policy and service delivery systems, managing the networked collaborations, (2) what critical factors matter to the diffusion process, (3) how the ICT technologies can be leveraged to innovate the bureaucratic process of the public service; and (4) how the grass-root citizen participations with collective intelligence can create and manage opportunities for innovations. We call for (quasi-) experimental research and various theory-testing case studies that can touch these issues or comparative research to identify differences and similarities of smart governance for public innovation projects across developing and developed countries.

Pre-Conference Workshops and Tutorials

Chairs: Wookjoon Sung and Loni Hagen

Dg.o workshops are half- or full-day facilitated discussions. Discussions are typically stimulated by short presentations by workshop participants. Individuals proposing workshops will assume the responsibility of identifying and selecting participants for the workshop and for conducting workshop activities. Dg.o tutorials are half- or full-day presentations or hands-on experiences offering deeper insight into the scientific or government domains, research topics or methods, technologies or field experiences of veteran digital government researchers and practitioners.

Panels

Chairs: Kwangho Jung and Taewoo Nam

Panel proposals may address themes or topics related to any of the tracks for the conference. Additionally, we welcome panel proposals that put a spotlight on practice and application. Proposals from practitioners at all levels of government featuring experiences with, perspectives on, and evaluations of digital government practice are encouraged. Individuals interested in submitting panel proposals are invited to consult the panel co-chairs about their ideas prior to developing their submissions. Please send your interest for panel development to Kwangho Jung at kwjung77@snu.ac.kr and Taewoo Nam at namtaewoo@gmail.com.

Posters and System Demonstrations

Chair: Jisung Yoo

The poster session, held in conjunction with the system demonstrations, allows presenters to discuss research in progress, application projects, or government policies and program initiatives in one-to-one conversations with other participants at the conference.

PhD Colloquium

Chairs: J. Ramon Gil-Garcia, Ida Lindgren and Gabriela Viale Pereira

The doctoral colloquium is a highly interactive full-day forum in which Ph.D. students meet and discuss their work with each other and with senior faculty from a variety of disciplines associated with digital government research.

PUBLICATIONS

All accepted management or policy papers, research papers, student papers, panels, posters, and system demonstrations will be published in the printed proceedings and included in the ACM digital library and the DBLP bibliography system. Selected papers will be invited for a journal special issue. There will be several special issues relate to the conferences, including

- * Government Information Quarterly (GIQ)
- * ACM Digital Government Research and Practice (DGOV)
- * Journal of Theoretical and Applied Electronic Commerce Research (JTAER)
- * Transforming Government: People, Process, Policy (TGPPP)
- * International Journal of E-Government Research (IJEGR)
- * Information Polity
- * International Journal of E-Planning Research
- * International Journal of Public Administration in the Digital Age (IJPADA)
- * Journal of Open Innovation: Technology, Market, and Complexity (JOItmC)

BEST PAPER AWARDS

Outstanding achievement awards will be presented in the categories Research papers, Management, Case Study and Policy papers, Posters, and System demonstrations. Papers that reflect the main theme of the conference, Innovations and Transformations in Government, will be preferred. Other selection criteria include the interdisciplinary and innovative nature of the work, its contribution to and balance between theory (rigor) and practice (relevance), the importance and reach of the topic, and the quality of the writing for communicating to a broad audience.

IMPORTANT DATES

January 15, 2020: Papers due

January 20, 2020: Workshops, tutorials, and panel proposals due

March 1, 2020: Application deadline for 2020 doctoral colloquium

March 1, 2020: Notifications of acceptance

March 15, 2020: Posters and demos proposals due

April 1, 2020: Poster/demo author notifications

April 5, 2020: Camera-ready manuscripts due

May 5, 2020: Early registration closes!

SUBMISSION TYPES AND FORMATS

Manuscript preparation guidelines

Papers/posters/manuscripts can be submitted using the "2019 ACM Master Submission Template

(single-column)" (See Step 1 in the formatting instructions section for the templates).

Submissions should not exceed the maximum number of pages specified for each type of submission in ACM format (see below formatting instructions). Please do not use page numbers. Paper titles should be on the first page of text, rather than on a separate cover page.

Research, Management, Case Study, and Policy papers go through a double-blind review process. When you submit your manuscript for the first time, author names and contact information must be omitted from the submission. After the review, this information should be added.

All other submissions should follow the same ACM proceedings format but include author names.

All accepted submissions require at least one author to be registered for the conference before the camera-ready copy is due for it to be included in the conference proceedings. The authors of more than two papers can register for and present at most two co-authored papers. Third paper on, some other coauthor registration and presentation are required.

At least one author per paper is expected to attend the conference to present the work.

*** The page numbers in each submission category are the maximum pages in the two-column format. The word counts in Table 1 below should give a better estimate in preparing your submission in a single column format. **

Research papers — double blind review: These submissions report innovative digital government research results in the form of a formal scholarly paper. Papers on any digital government topic and all research methodologies are welcome. Relevance to digital government problems, goals, or policies must be explicit. (The submission should be within approximately 8000 words to result in the 10-page limit formatted in the two columns.)

Management, case study, or policy papers – blind review: These submissions describe and evaluate practical digital government projects or initiatives, discuss major policy themes, or present and evaluate management approaches to digital government initiatives and programs. (Approx. 5000-word limit)

Posters: Summaries should outline the nature of the research, policy, or project and describe why the work will be of interest to dg.o attendees. For inclusion in the conference proceedings, please follow the ACM Proceedings preparation guidelines. For presentation at the conference, posters should measure approximately 36" x 48". Each poster station is provided with a table and an easel. Selected poster submissions may be asked to give an oral presentation in the conference sessions. (Approx. 1300-word limit)

System Demonstrations: System demonstrations are held concurrently with the poster session to the accompaniment of good food and professional fellowship. The summary should outline the nature of the system and describe why the demonstration is likely to be of interest to dg.o attendees. Demonstrations of interest include systems under development or in active use in research or practice domains. Submissions should include authors' names and contact information according to that format. Each station is provided with a table, an easel, and Internet access. Monitors will be available for rent. Selected demo submissions may be asked to give an oral presentation in the conference

sessions. (Approx. 1300-word limit)

Panels Proposals should include information about the theme and goals of the panel, a summary of the digital government issues or questions that the panel will address, statements about the value of the discussion to conference attendees and how well suited the topic is to a panel discussion. In addition, the proposal should include information about the expertise of the moderator and panelists in the selected issues. Please include names, institutional affiliations, addresses, email, and phone contact numbers of the contact person, moderator, and presenter(s). (Approx. 1300-word limit)

Pre-conference Tutorials: dg.o tutorials are half- or full-day presentations that offer deeper insight into e-government research, practice, research methodologies, technologies or field experience. In particular, tutorials provide insights into good practices, research strategies, uses of particular technologies such as social media, and other insights into digital government that would benefit researchers and practitioners. (Approx. 1300-word limit)

Pre-conference Workshops: We invite workshop proposals on any e-government research or management topic. Workshops are half- or full-day events intended to offer interactive sessions, in which the workshop host and participants discuss and engage in activities designed to facilitate joint learning and further exploration of a particular subject. Individuals proposing workshops will assume the responsibility of identifying and selecting participants for the workshop and for conducting workshop activities. (Approx. 1300-word limit)

Doctoral Colloquium: Ph.D. students can submit papers describing their planned or in-progress doctoral dissertation covering any research areas relevant to digital government. Ideally, student participants will have completed one or two years of doctoral study or progressed far enough in their research to have a structured proposal idea and preliminary findings, but have not reached the stage of defending their dissertations. We expect students at this stage of study will gain the most value from feedback on their work and the more general discussions of doctoral programs and scholarly careers. The detailed announcement for complete information on the colloquium and how to submit an application will be made separately. Material provided in applications to the doctoral colloquium will not be published in the proceedings. However, we encourage students to submit finished research to one of the paper tracks or as a poster or demo.

FORMATTING INSTRUCTIONS

STEP 1 (Microsoft Word): Write your paper using the **Submission Template** (Review Submission Format). Follow the embedded instructions to apply the paragraph styles to your various text elements. The text is in single-column format at this stage and no additional formatting is required at this point.

STEP 1 (**LaTeX**): Please use the latest version of the <u>Master Article Template - LaTeX</u> (1.63a; published August 6, 2019) to create your article submission. Please review the <u>documentation</u> should you have any questions.

STEP 2: Submit your paper for review.

STEP 3 (**Microsoft Word**): Upon acceptance, you will receive an email notification to download the **ACM Master Article Template - Microsoft Word**. Please choose the correct template version based on your platform: [MAC 2011, MAC 2016, or Windows] and save the .zip file to your local machine. Open the zip file and save the template file to your machine and then follow these instructions to attach the ACM ArticleTemplate to your accepted submission version and prepare your paper (still in single-column format)

for validation.

STEP 3 (LaTeX): Proceed to step four.

STEP 4: There are two (2) paths for authors to submit their source files for production processing

- a. For conferences using **vendor managed productions services**: Authors need to supply your source file set to the vendor's content/production management system
- b. For conferences who are **managing production themselves**: Authors will receive an email notification with instructions to upload your source file set to **The ACM Publishing System (TAPS)**. Download <u>these instructions</u> for the information on how to use TAPS. TAPS will process your paper and auto-generate proofs of your article for your review.*

FORMATTED PAGE ESTIMATION:

To estimate the formatted page count, please use the following as a guide:

Table 1 Two Column Page Estimates (source: ACM https://www.acm.org/publications/taps/word-template-workflow)

Estimated Word Count	Number of Figures	Number of Tables	Estimated Formatted Page Count (In Two Columns)
8200	5	2	11
7980	7	4	14
6750	3	2	9
6310	2	3	8
5030	3	1	6
4350	3	2	5
Est. 1300	1	1	2

For more formatting instructions, consult the ACM proceedings formatting instructions at: https://www.acm.org/publications/taps/word-template-workflow and best practices at: https://www.acm.org/publications/taps/taps-best-practices

ORGANIZATION

General Conference Chairs:

Dongwook Kim, Seoul National University, Korea Luis Luna-Reyes, University at Albany, USA Soon Ae Chun, City University of New York, USA

Program Chairs:

Seok-Jin Eom, Seoul National University, Korea Jooho Lee, University of Nebraska at Omaha, USA

Local Organization Committee:

Kwangho Jung, Seoul National University, Korea (Chair) Minsang Lee, Seoul National University, Korea Seungyun Shin, Seoul National University, Korea

^{*} Final review and approval of your paper rests with the Editor (Production Chair / Program Editor / Production Vendor). Journal papers will be copyedited and an additional set up proofs sent for author review.

Hanbyul Choi, Seoul National University, Korea Youngmin Cho, Seoul National University, Korea Ara Lee, Seoul National University, Korea Dongsoo Ham, Seoul National University, Korea Jungho Park, Seoul National University, Korea

Track Chairs:

Andrea Kavanaugh, Virginia Tech, USA

Rodrigo Sandoval-Almazan, Universidad Autonoma del Estado de Mexico, Mexico

Loni Hagen, University of South Florida, USA

Iryna Susha, Örebro University, Sweden

Efthimios Tambouris, University of Macedonia, Greece

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Yu-Che Chen, University of Nebraska Omaha, USA

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Choong-sik Chung, Kyungsung University, Korea

Tobias Siebenlist, Offene Kommunen NRW Institut e.V., Germany

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Evgeny Styrin, National Research University Higher School of Economics, Russia

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Lei Zheng, Fudan University, China

Chris Hinnant, Florida State University, USA

Kwangho Jung, Seoul National University, Korea

Hyunsub Kum, Seoul National University, Korea

Hun-Yeong Kwon, Korea University, Korea

Ki-Yeong Min, President, Korea Data Agency, Korea

Michael Reiterer, Embassy of the European Union to Republic of Korea, Korea

Sehl Mellouli, Laval University, Canada

Adegboyega Ojo, National University of Ireland, Galway, Ireland

Marijn Janssen, Delft University of Technology, The Netherlands

Kyung Ryul Park, KAIST (Korea Advanced Institute of Science and Technology), Korea Carla Bonina, University of Surrey, UK

Workshop/Tutorial Chairs:

Wookjoon Sung, Seoul National University of Science and Technology, Korea Loni Hagen, University of South Florida, USA

Panel Chair:

Kwangho Jung, Seoul National University, Korea Taewoo Nam, Sungkyunkwan University, Korea

Poster/Demo Chair:

Jisung Yoo, Seoul National University, Korea

Doctoral Colloquium Chair:

Ramon Gil-Garcia, University at Albany, USA Ida Lindgren, Linköping University, Sweden Gabriela Viale Pereira, Danube University Krems, Austria

Communication & Web Chair:

Jun Houng Kim, Seoul National University, Korea

Registration Chairs:

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Marijn Janssen, Delft University of Technology, The Netherlands Theresa Pardo, University of Albany, USA