



United Nations
Educational, Scientific and
Cultural Organization

Organisation
des Nations Unies
pour l'éducation,
la science et la culture

Organización
de las Naciones Unidas
para la Educación,
la Ciencia y la Cultura

Организация
Объединенных Наций по
вопросам образования,
науки и культуры

منظمة الأمم المتحدة
للتربية والعلم والثقافة

联合国教育、
科学及文化组织

**Keynote Address by Mr. Engida Getachew,
Deputy Director-General of UNESCO**

***How can Digital Government Support the Development of
Knowledge Societies?***

**On the occasion of the 9th international Conference on
Theory and Practice of Electronic Governance
(ICEGOV2016)**

**Radisson Montevideo Victoria Plaza Hotel
Montevideo, Uruguay,
(4:40 p.m. - 5:20 p.m., 1 March, 2016)**

Abstract

***How can Digital Government Support the Building of Knowledge
Societies?***

Since the early 2000's UNESCO has been promoting its vision of knowledge societies. In knowledge societies, as envisaged by UNESCO, people have the skills, competencies and attitudes to use knowledge and information to enhance their livelihoods and contribute to the social and economic development of their communities. This requires an empowering social vision that encompasses plurality, inclusion, solidarity and participation as well as respect for human rights. Digital government offers possibilities for enhancing public service delivery, improving participation in decision-making and access to information in the public domain. The presentation explores conditions that digital government strategies must embed if their potential for building knowledge societies is to be realized.

Mr. Jose Clatornik, Executive Director of AGESIC

Mr. Tomasz Janowski, Director of UNU-EGOV

Ms. Chafica Haddad, Chair of UNESCO's Intergovernmental Council of the Information for All Programme (IFAP)

Ms. Lidia Brito, UNESCO Director and Representative in the Montevideo Office,

Other Distinguished Personalities,

Ladies and Gentlemen,

On behalf of UNESCO and on my own behalf, I would like to thank you again for your warm welcome to Montevideo and for this opportunity to present this afternoon's keynote address on the topic **"How can Digital Government Support the Building of Knowledge Societies?"**

Firstly, in UNESCO's capacity as an official partner in this event allow me to thank again the Republic of Western Uruguay for their exceptional hospitality in hosting this 9th edition of ICEGOV.

Uruguay has been a Member of UNESCO since 1947 and continues to provide active support and engagement with the Organization across our five fields of competence which are Education, Natural and Physical Sciences, Social Sciences, Culture, and Communication and Information.

A number of UNESCO research chairs have been established at Uruguayan universities. The country also has outstanding examples of natural beauty, distinct flora, fauna and exquisite cultural value that are inscribed as UNESCO World Heritage Sites, Biosphere Reserves and Geoparks. The city of Montevideo is part of the UNESCO Network of Creative Cities. The city also hosts our Regional Office for Sciences in Latin America and the Caribbean. So Uruguay has a special place in UNESCO's history and its ongoing work.

Uruguay has been one of the 26 Member States elected to the council of UNESCO's intergovernmental Information for All Programme (IFAP).

IFAP supports Member States in the development of their national information and knowledge strategy frameworks.

IFAP promotes cooperation, capacity-building and projects across six priority areas information accessibility, information for development, information ethics, information literacy, information preservation and multilingualism in cyberspace.

IFAP is a cornerstone in UNESCO's efforts to promote access to information and build knowledge societies.

As a member of the United Nations University's Advisory Board, UNESCO has a close relationship with its institutes and special operating units. We have had especially fruitful collaboration with the United Nations University's Special Operating Unit for policy-driven Electronic Governance both within the ICEGOV conference series and in joint capacity-building that have benefitted policy-maker from more than 10 countries in Asia and Africa.

Over the past months we have been collaborating with UNU-EGOV on developing a Knowledge Societies Policy Handbook on knowledge societies and digital resources to support Member States to design, implement and assess their national knowledge societies strategies.

Some Key Concepts

To lay the foundations for this afternoon's keynote address, "How can Digital Government support the development of Knowledge Societies?", allow me to outline some concepts that are central to our discussion.

Governance and Digital Government

Governance is the process by which decision are made and implemented. This involves interactions between both formal and informal actors. The formal actors being the various

branches of government and the informal ones are stakeholders such as the private sector, civil society and citizens.

So when we refer to digital government, we are speaking of the use and application of information and communication technologies for making and implementing societal-scale decisions.

From this perspective, we see digital government as involving the application of both new and old information communication technologies and networks as well as related, tools, processes, services and systems.

Depending on the scale and scope of the governance processes under consideration, whether at the international or community level we may see a range of actors from governments to individuals and a corresponding range of tools and services that operate on local or even global networks.

Digital government can leverage the power of ICT to manage information and information processes allowing for efficiencies in scale and scope. Digital government can also help overcome barriers to participation such as physical distance, cost and time while offering possibilities for improved quality.

When the processes for making and implementing decisions are participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable, inclusive and follows the rule of law, we have good governance.

Good governance ensures that the voices of the most vulnerable in society are heard and acted on. Good governance is responsive to present needs as well as the future needs of society.

Fundamentally good governance is about ensuring sustainable development.

So in short digital government offers the potential for enhancing each of the factors that contribute to good governance and sustainable development.

Knowledge, Information Society and Knowledge Societies

Let us think about knowledge for a moment.....

Knowledge, in whatever field, empowers those who create and possess it with the capacity for intellectual or physical action. It is fundamentally a matter of cognitive capability, skills, training and learning.

Knowledge has been critical for the survival of human beings and for ensuring sustainable development.

Since the dawn of human civilization, the creation and application of new knowledge, in every sphere of human activity, has contributed to the evolution of societies and the economic welfare of people.

Knowing how to do things, how to communicate and to work with other people has therefore been regarded, since ancient times, as one of the most precious riches that humans possess. Almost all the major religions and cultural groups have laid emphasis on teaching, learning and acquisition of knowledge for cultural enrichment and for socioeconomic progress of societies.

A number of major societal transformations and transitions have shaped humanity's progress. These transformations have been characterized by a focus on and specialization in specific types of knowledge and knowledge processes.

In turn these transformations have altered the way in which societies generated value as compared to previous periods. We think of the agrarian revolution, the industrial revolution and the digital or information revolution that ushered in the age of ICTs. Accordingly, we use terms such as agrarian societies, industrial societies and digital or information societies to describe these

societies which organized themselves around specific forms of production.

The access to cheap and rapid computational power has supported the emergence of information content industries, information delivery industries and information processing industries. These industries due to their ease of applicability to a variety of fields triggered other technological developments such as cheaper and more wide-spread use of information and communication technologies which lead to the emergence of the information society.

The information society has in turn served as the building block for societies in which intangible “cerebral work”, the use and application of theories, models and experience are central to making sense of information and decision-making. Today the application of knowledge represents the key source of value addition and socio-economic development.

However, knowledge is important not only for economic growth but also for its ability to empower individuals and contribute to developing all sectors of society.

There are a variety of perspectives around knowledge societies. Some perspectives emphasize the economic aspects and the gains that can be realized when a society structures itself around an economy focused on maximizing and gaining competitive

advantage from the use, creation, dissemination and preservation of knowledge.

Another dominant viewpoint is grounded in a technology-centric outlook that focuses on the role of ICT infrastructure to drive the leveraging of knowledge and learning strategies aimed at triggering ICT-based innovation.

UNESCO's Vision of Knowledge Societies

While economic and technological aspects are important, from UNESCO's perspective, humanity must be at the center!

It is only when we introduce the human element that we can begin to think of values, meaning, purpose and principles that can direct us in establishing and evaluating options, making decisions and then implementing them.

International frameworks such as the universal declaration of human rights founded on principles of peace, justice and equity provide in UNESCO's view, a sound basis for guiding and shaping societal decision making processes.

So for UNESCO, Knowledge Societies are societies in which people have the capabilities not just to acquire information but also to transform it into knowledge and understanding, which

empowers them to enhance their livelihoods and contribute to the social and economic development of their communities.

Knowledge societies are about capabilities at the societal level to identify, produce, process, transform, disseminate and use information to build and apply knowledge for human development.

To create this type of knowledge societies requires an empowering social vision that encompasses plurality, inclusion, solidarity and participation.

What distinguishes the UNESCO perspective on knowledge societies is its ethical grounding in human rights principles.

Technological and economic goals are not necessarily good or bad, but they are also not neutral in terms of their impacts on different societal groups.

With knowledge as the most important sources of value production those without effective and equitable access to knowledge, will be left behind.

UNESCO's vision of Knowledge Societies therefore calls into question and seeks to proactively counter situations that exacerbate inequalities, and "winner takes all outcomes" which

increase disparities and undermine the conditions for peace, justice and social cohesion.

So what are the principles that undergird knowledge societies and how can digital government incorporate them?

The principles of freedom of expression, universal access to information and knowledge, promotion of cultural diversity, and equal access to quality education undergird and play a critical role in unlocking the potential of individuals, and shaping institutional and collective mindsets that support the realization of knowledge societies.

Freedom of Expression

Since Knowledge Societies are premised on the use of knowledge for societal development, freedom of expression and freedom of information are essential for the dissemination, interrogation and validation of knowledge. Through these processes of examining information, understanding and knowledge is created as well as confidence and trust.

Digital government can contribute to enabling freedom of information through a variety of measures. Adopting policies for the proactive release of government information as well as

research and data generated from public funding establishes a basis in law for information disclosures.

Where a tradition of regarding all government information as secret exists, awareness-building for staff in the public administrations as well as external stakeholders is necessary to stimulate attitudinal and behavioural change.

Digital technologies also offer possibilities such as multiple media channels and formats for the distribution of information such as virtual town hall meetings, broadcasts of parliamentary and committee meetings, discussion boards, blogs, commentaries and others where interactions between governments actors, citizens, civil society and other stakeholders can occur.

So it is of utmost importance that the most pressing societal issues be articulated through dialogue, and tools such as needs assessment surveys and participatory approaches be enlisted to inform decision making.

Cultural and Linguistic Diversity

UNESCO deliberately uses the plural form knowledge societies to recognize the richness inherent in cultural diversity (historic, social, linguistic, ethnic, religious) and to recognize the

importance of context-relevance in decision-making and solution finding.

Most societies are inherently diverse and due to globalization this diversity appears to be on the rise. There is a correlation between the way people interact and are valued, and the potential for more harmonious and enriching relationships. UNESCO believes that there is a greater prospect of peace, stability and prosperity if people and their communities are accorded respect and human dignity, if they have a greater understanding and therefore tolerance of differences, and if the policies pursued result in inclusion rather than marginalisation.

Accordingly, policies and technologies that support the use of multiple languages, modes of communication for accessing and participating in the use of government services represent a positive response to this diversity and contribute to social cohesion.

Universal access to information and knowledge networks

As already mentioned, access to information and knowledge is critical as they are increasingly determining factors in our ability to enhance development whether at a personal, community, national or planetary scale.

As the challenges of life become more complex, this also requires an augmentation in the level of information and knowledge required to address problems. This implies the need for an expansion of the information available to societal actors to develop the requisite understanding to develop appropriate responses to development challenges.

Efforts aimed at expanding the quantum of quality content in the public domain is therefore relevant and essential.

There are numerous examples of how adaptive ICT tools have opened up new vistas for persons with disabilities to participate and contribute to their societies. Given that around 15% of populations have disabilities, the full integration of persons with disabilities in societies represents an important advance in ensuring inclusiveness and equity as well as a contribution to societal productivity. Greater awareness of these possibilities, the updating of policies and their implementation by designers of digital government services and communication to the public is essential.

Infrastructure and hardware aspects such as cost, language, format, relevant content, user capabilities and adaptations for persons with disabilities need to be addressed to ensure improved access to information.

The upgrading of existing service centers such as libraries, post offices and the establishment of new services such as kiosks and mobile centers adapted to the context of the regions can enhance the governance process. Where viable the distribution of tablets and other devices and the use of existing mobile apps can ensure broader access.

Quality Education for All

In order to effectively utilize and benefit from the information and knowledge streams, users require a range of competencies.

Knowledge societies are places of learning where new competencies and capabilities develop both as a result of and in response to innovations. Access to quality education at school and throughout one's lifetime provides the foundation and skills to effectively navigate social changes by equipping citizens with the skill needed for learning to learn.

Digital government platforms can offer new possibilities for supporting both formal and non-formal learning processes.

Adopting policies and guidelines that favour the production and use of open educational resources and open access to scientific knowledge can support access to quality content that enhances the human capital of the society and opportunities for economic activities that create employment.

It is also important to recognize that principles of freedom of expression, universal access to information and knowledge, promotion of cultural diversity, and equal access to quality education are not stand alone concepts. Rather, they are interdependent and mutually reinforcing factors.

UNESCO's Internet Universality and the ROAM Principles

Last year, UNESCO published a study entitled “Keystones to foster inclusive Knowledge Societies – Access to information and knowledge, Freedom of Expression, Privacy and Ethics on a Global Internet”.

The study was built on a year-long multi-stakeholder consultation process, which involved several rounds of consultation with Member States and other actors, as well as almost 200 major responses to an online questionnaire.

The study affirmed that the same rights that people have offline must be protected online, and good practices shared between Member States and other stakeholders, in order to address security and privacy concerns on the Internet and in accordance with international human rights obligations.

The Study also supported the Internet Universality principles (R.O.A.M) that promote a human rights-based approach, including freedom of expression, privacy, as well as an open Internet, accessible to all and characterized by multi-stakeholder participation.

The Outcome Statement of a multi-stakeholder international conference under the theme “CONNECTing the Dots: Options for futures” convened specifically to discuss and validate the study produced an outcome statement with 38 recommendations. This outcome statement as well as the Internet Universality principles were later unanimously adopted by Member States in November 2015 during UNESCO’s 38th session of its General Conference, the organizations highest standard setting body.

The study’s recommendations are particularly relevant to digital government services that rely on networks such as the Internet.

As I have already spoken to the roles of access to information and freedom of expression I will highlight primarily aspects of the study that are related to privacy and ethics.

Privacy

Privacy is a human right, which nations have formally committed to respect both on-line and offline.

Specific online identifiers, individual characteristics, data and metadata about our online interactions and preferences are some of the aspects that constitute our digital self.

These virtual representations interact with the digital government infrastructure. The security and authenticity of these representations and our personal data contribute to enhancing the quality of services that citizens receive, prevent wastage and fraud. Aggregation, analysis and cross-referencing of such data can support optimization and innovation in service delivery.

However, citizen data may be used by governments in ways not intended or foreseen by the citizen, for example to suppress dissent, support surveillance actions and carry out harassment. The unauthorized disclosure of data by governmental actors or through breaches of the digital infrastructure may create physical or symbolic harm to the individual and society.

Accordingly, in rolling out digital government, there is a need to:

- Recognise the role that anonymity and encryption can play as enablers of privacy protection and freedom of expression, and facilitate dialogue on these issues;
- Share best practices in approaches to collecting personal information that is legitimate, necessary and proportionate, and that minimizes personal identifiers in data;
- Support initiatives that promote peoples' awareness of the right to privacy online and the understanding of the evolving ways in which governments and commercial enterprises collect, use, store and share information, as well as the ways in which digital security tools can be used to protect users' privacy rights.

Ethics

Ethics considers whether the norms, rules and procedures that govern online behaviour, the design of digital governance infrastructure and policies are based on human rights principles.

Has protection of the dignity and safety of individuals, advancement of accessibility, openness and inclusiveness been addressed.

What about considerations such as non-discrimination on the basis of gender, age or disabilities?

Has thought been given during design to potential unintended consequences of the digital government system and its policies? If so, what corrective measures have been implemented or are foreseen?

So to ensure ethical digital government systems and policies that contribute to building knowledge societies we must:

- Promote human rights-based ethical reflection, research and public dialogue on the implications of the digital governance systems the emerging technologies they integrate and their potential societal impacts;
- Incorporate, as a core component in educational content and resources, including life-long learning programmes, that support the understanding and practice of human rights-based ethical reflection and its role in both online and offline life;
- Enable girls and women to take full advantage of the potential that digital governance offers for gender equality by proactively removing barriers and promoting their equal participation;
- Support policy makers to enhance their capacity to address the human right-based ethical aspects of inclusive knowledge societies by providing relevant training and resources to support them in decision and policy-making;

- Recognizing the potential trans-boundary reach of digital governance systems, promote global citizenship education, regional and international cooperation, capacity-building, research, the exchange of best practices and development of a broad understanding and capabilities to respond to ethical challenges.

A few words on Preparing for the future

Earlier I pointed out that an important characteristic of good governance is its responsiveness to present needs as well as the future needs of society.

As we look around, we have the sense that the pace and rate of change is accelerating, driven by knowledge, innovation and technological breakthroughs.

Earlier I mentioned historical shifts namely the agrarian, industrial and information revolution that transformed the way in which value was created and perceived and influenced how societies were organized.

Today we are on the cusp of another set of breakthroughs as fields such as artificial intelligence, robotics, big data, the internet of things, biotechnology and quantum computing converge. Some thought leaders are referring to these developments as the fourth industrial revolution.

These breakthroughs offer prospects for increased quality of life.

On the other hand, it appears that these technologies may bring new disruptions and even more heightened inequalities.

These technologies will and are presenting new and urgent policy questions which require broad-based, strategic, reflection and coordinated action.

If we are to build the knowledge societies that I have been describing, we need to be even more resolute in our adoption and implementation of the principles of freedom of expression, equitable access to information, life-long access to quality education, respect for cultural and linguistic diversity, privacy and ethical principles grounded in human rights, built on multi-stakeholder dialogue and decision-making.

These principles advocated by UNESCO and supported by Member States, as well as the policy resources being developed jointly with UNU-EGOV and other partners seek to elaborate how this vision of a more human, inclusive and sustainable future can be realized.

We look forward to working closely with you and like-minded partners to harness the potential of digital governance for building knowledge societies.

Thank you for your attention.