

Digital Citizenship Strategy for an Information and Knowledge Society



Uruguay
Presidencia

Ministerio
de Educación
y Cultura

Dirección
de Educación

Ministerio
de Industria,
Energía y Minería

<>agesic

ANEP

Instituto Nacional de Derechos
Humanos y Defensa del Pueblo



UNIVERSIDAD
DE LA REPÚBLICA
URUGUAY



ProEVA
Programa de Entornos
Virtuales de Aprendizaje



Plan Ceibal

UTEC
Universidad Tecnológica



Oficina de
Montevideo
Oficina Regional
de Ciencias para
América Latina y
el Caribe
Objetivo de
Desarrollo
Sostenible

unicef

FLACSO
URUGUAY



UCU

Final document ¹

Digital Citizenship Strategy for an Information and Knowledge Society

¹ It is understood that the construction of digital citizenship is in a constant state of change. In this sense, the approach framework defined in this document requires not only a specific, interdisciplinary interpretation by segment and by social context, but also a periodic review of the conceptual agreements defined in the document itself.

Contents

INTRODUCTION	4
DIGITAL CITIZENSHIP STRATEGY	6
1. Cross-cutting perspectives of approach for Latin America	6
2. Dimensions of uses and competencies	7
2.1 Critical and reflective use	7
2.2 Responsible and safe use	8
2.3 Creative and participatory use	8
3. Lines of action and objectives	9
3.1 Digital Citizenship Governance	9
3.2 Capacity building	10
3.3 Research	10
BIBLIOGRAPHIC REFERENCES	12
ANNEXES	13

INTRODUCTION

In recent years, discussions linked to the construction of Digital Citizenship have taken on particular relevance. From various spheres, it is pointed out that the development of our society with equity requires considering Digital Citizenship as a central component of the exercise of citizenship in the twenty-first century.

The classic concept of “citizenship” refers to all the rights and obligations by which a person is bound in a relationship with the society to which they belong. The quality of citizenship confers membership in an organized human community, transcending legal ties.

“Digital Citizenship” is a concept that is in permanent construction. It refers, mainly, to our behaviors and attitudes in digital spaces, including the exercise of rights and obligations.

UNESCO defines Digital Citizenship as a set of competencies that enables citizens to access, retrieve, understand, evaluate, and use information for creative purposes. It also involves sharing information and media content in all formats, using various tools in a critical, ethical, and effective way in order to participate and engage in personal, professional, and social activities.

Digital Citizenship, then, must be able to exercise its rights and fulfill its obligations in the digital environment, an environment that is new but is integrated into the social space just as a square or the street is. It is understood that the full exercise of Digital Citizenship involves developing competencies that make it possible to critically assess the information received, an understanding of the social and economic impact of technology, respect for the law, knowledge and defense of established rights, and the generation of new rights in relation to the digital environment.

Building citizenship in digital environments is a joint effort of a system that includes the State, academia, businesses, and organized civil society, as well as each one of us as members of a society in which we occupy different roles.

Within this framework, Uruguay is in a privileged position in the region. It has broad coverage of telecommunications infrastructure and a consolidated regulatory framework² and an Open Data policy. Through Plan Ceibal, all children in public education have their own computer with internet access and can share it with their families³. In addition, the creation of Plan Ibirapitá⁴ has promoted digital inclusion in the service of older adults with the aim of improving social inclusion, participation, and equity. Plans have been carried out so that the population has basic digital literacy skills, as well as programs aimed at making the procedures and services provided by the State available online, among other advances in Digital Government that have been recognized internationally.

All these achievements stem from a sustained digital policy, reflected in the successive Digital Agendas that the country has carried out from 2008 to date⁵. This

² UAIP: <https://www.gub.uy/unidad-acceso-informacion-publica/>; URCDP: <https://www.gub.uy/unidad-reguladora-control-datos-personales/>

CERTuy: <https://www.gub.uy/centro-nacional-respuesta-incidentes-seguridad-informatica/>

³ <https://www.ceibal.edu.uy/es/articulo/ceibal-en-cifras>

⁴ See: <https://ibirapita.org.uy/>

⁵ See: <https://uruguaydigital.gub.uy/agenda-digital/agenda-2020>

tool rests on a commitment to constant analysis and monitoring, with quality national statistics for its evaluation ⁶ .

These actions are contributing to reducing inequalities and access gaps between the higher-income and lower-income population, and to the democratization of services, making digital development a hallmark of Uruguay both at home and abroad.

In addition, the country has led, for eight consecutive years, the ICT Development Index (IDI) of the International Telecommunication Union in Latin America and the Caribbean ⁷ , making it a very relevant actor in the international context. Currently, it is a member of Digital Nations, the group of the most digitally advanced countries in the world, being the first Latin American country to obtain that recognition ⁸ .

Uruguay has the conditions to address the current challenges of the Information and Knowledge Society and to anticipate those that may arise in the future.

Starting from the recognition of this national situation and of the international context, joint work was carried out with various agencies and institutions related to the subject, and common frameworks of reference on Digital Citizenship were agreed upon that make it possible to generate coordinated and aligned awareness-raising strategies.

Within this framework, in August 2019, Agesic and UNESCO Montevideo convened public, academic, and organized civil society organizations to a Digital Citizenship Working Group (GTCD) with the objective of drafting a document with recommendations for the design of a Digital Citizenship strategy. Representatives of the following organizations and institutions take part in these meetings: Ministry of Education and Culture, Ministry of Industry, Energy and Mining, Codicen - Anep, National Human Rights Institution, Universidad de la República, Plan Ceibal, Fundación Ceibal, Universidad Tecnológica del Uruguay, UNESCO Montevideo, UNICEF Uruguay, Facultad Latinoamericana de Ciencias Sociales de Uruguay, Pensamiento Colectivo, Universidad Católica del Uruguay, and Agesic.

In parallel with the drafting of this document, the cross-cutting perspectives and the dimensions of use contained in this strategy were submitted for validation at five thematic roundtables (“Early childhood,” “Young people,” “Older adults,” “Gender,” and “Role of the media”) as part of the Second Digital Citizenship Conference.

This Digital Citizenship Strategy for an Information and Knowledge Society presents the first actions to be carried out through an open construction process ⁹, sharing what has been developed with the representatives and interested people who took part in the GTCD, and gathering their views and contributions. These actions are intended to be the kickoff for a process that will have to continually monitor and rethink the way in which citizens use technology, as well as the results obtained, in order to ensure digital transformation with equity.

⁶ For example, the Survey on ICT Usage (EUTIC). See: <http://www.ine.gub.uy/encuesta-de-uso-de-la-tecnologia-de-la-informacion-y-las-comunicaciones>
⁷ See: <https://www.itu.int/en/ITU-D/Statistics/Pages/publications/mis2017.aspx>

⁸ See: <https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/comunicacion/noticias/uruguay-asumio-presidencia-del-digital-9>

⁹ At the Second Digital Citizenship Conference in 2019, five thematic roundtables (early childhood, adolescence, older adults, gender, and media) discussed the cross-cutting perspectives, dimensions, and skills contained in this document. Between June and September 2020, a public consultation was held on the document prepared by the Digital Citizenship Working Group.

DIGITAL CITIZENSHIP STRATEGY

1. Cross-cutting perspectives of approach for Latin America

Drawing on the reference frameworks and studies ¹⁰, as well as on the particularities of the Latin American and Uruguayan reality (history, economic and social structure) for generating public policies that contribute to the development of Digital Citizenship, the GTCD agreed on the following cross-cutting perspectives for approaching the subject in Latin America:

Digital inclusion. Access to quality devices and connectivity, as well as to the competencies and educational level needed to develop instrumental digital literacy skills among all citizens. It also means providing adequate conditions of universal accessibility ¹¹ so that all people can exercise digital citizenship, attending to the specific needs of each population (persons with disabilities, older adults, etc.), taking into account the reasonable accommodations that may be appropriate. ¹²

Cultural capital. Attitudes, knowledge, and skills that allow access to, representation of, and production of diverse cultural forms.

Democratic culture. Recognition of cultural diversity and of different points of view and opinions, valuing and caring for common spaces and the environment, and ensuring inclusion and social equity.

Participation. Use of all available channels to take part in the strategic decisions that affect people's daily lives, with an emphasis on public affairs.

Human rights. Respect for human rights as enshrined at the international, regional, and national levels ¹³ and consideration of the new challenges that come into play in digital environments ¹⁴. Assuming that the gaps in society are also reproduced in the digital environment, emphasis is placed on how

¹⁰ See "Annexes."

¹¹ Concept of Universal Accessibility: "Universal accessibility refers to the set of characteristics that an urban environment, building, product, service, or means of communication must have in order to be used in conditions of comfort, safety, equality, and autonomy by all people. It presupposes the "Design for All" strategy and is understood without prejudice to the Reasonable Accommodations that must be adopted." (Accesibilidad

[Universal y Diseño para Todos](#). Fundación ONCE. 2011).

¹² Concept of Reasonable Accommodation: "Necessary and appropriate modification and adjustments not imposing a disproportionate or undue burden, where needed in a particular case, to ensure to persons with disabilities the enjoyment or exercise on an equal basis with others of all human rights and fundamental freedoms." (Convention on the Rights of Persons with Disabilities, United Nations (2006).

¹³ <https://www.un.org/es/universal-declaration-human-rights>; American Convention: https://www.oas.org/dil/esp/tratados_b-

[32_convencion_americana_sobre_derechos_humanos.htm](#); CONVENTION ON THE RIGHTS OF THE CHILD <http://www.impo.com.uy/bases/leyes-internacional/16137-1990>

¹⁴ We share some links that reflect on human rights in the digital environment: <https://www.deusto.es/cs/Satellite/deusto/es/universidad-deusto/sobre-deusto-0/derechos-humanos-en-entornos-digitales#:~:text=Toda%20persona%20tiene%20derecho%20a%20la%20protecci%C3%B3n%20de%20sus%20datos,privacidad%20de%20las%20comunicaciones%20online>. "Initiative in the Human Rights section, p. 239 of the book Jóvenes, transformación, digital y formas de inclusión en América Latina. <https://digital.fundacionceibal.edu.uy/jspui/handle/123456789/229>; <https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/politicas-y-gestion/derechos-ciudadania-digital>

the various categories of inequality operate in an articulated way (from an intersectional perspective) in rights linked to migration, gender, disability, and economic and educational inequality.

2. Dimensions of uses and competencies

It is established that the dimensions that must be considered in approaching the construction of Digital Citizenship refer to the way in which people use ICT. It is understood that these uses lead citizens to improve their quality of life, enhance the opportunities that the digital environment offers, and generate a space of coexistence and respect for human rights in which all of us are represented, included, and safe. In this sense, three dimensions are established: “Responsible and safe use,” “Critical and reflective use,” and “Creative and participatory use.” It should be made clear that these dimensions are not placed in a hierarchical order, but rather feed back into one another.

2.1 Critical and reflective use

This dimension focuses on a person’s ability to understand and critically evaluate technologies and information. Among other aspects, it involves:

Information analysis. Knowing how to select, analyze, compare, and process information on the web. Recognizing reliable information and sources and knowing how to detect disinformation and fake news.

Ability to question content. Understanding how technologies work and the way they produce, rank, and distribute content.

Understanding non-neutrality. Recognizing that subjectivities, power relations, biases, and political and commercial interests are at work in the digital environment.

Understanding what algorithms are and how they work. Understanding how our data are obtained, managed, and used as an input for developing Artificial Intelligence ¹⁵ tools, and the impacts that this technology has on our daily lives.

Identifying the interests involved. Recognizing the value of data and the power of the multiple actors who manage the digital environment.

Being aware of the digital ecosystem. Knowing who takes part, how they relate to one another, and how decisions are made in the digital environment.

¹⁵ For more information, it is recommended to consult the Artificial Intelligence Strategy for Digital Government https://www.gub.uy/agencia-gobierno-electronico-sociedad-informacion-conocimiento/sites/agencia-gobierno-electronico-sociedad-informacion-conocimiento/files/documentos/publicaciones/Estrategia_IA%20-%20versi%C3%B3n%20espa%C3%B1ol.pdf.

Understanding digital divides. Being able to reflect on and demonstrate the ways in which the web and technology operate on inequalities.

2.2 Responsible and safe use

Involves practices aimed at creating, in the digital environment, a safe space for civic coexistence. This entails:

Self-regulation. Deciding how much time to spend browsing the web and defining how, when, how much, and for what purpose it is used.

Ethical behavior. Reflecting on the possible ways of resolving each situation with personal and social responsibility for a peaceful and sustainable world, and with the motivation and willingness to care about the common good.¹⁶

Empathetic behavior. Understanding how my actions in the digital environment affect others.

Knowing and exercising rights in the digital environment. Being responsible, recognizing and exercising rights in order to build a safe digital environment, and knowing which agencies and mechanisms exist to protect those rights.

Awareness of the digital footprint. Being aware of the reach and the construction of the digital footprint, both one's own and that of others, made up of traces of information about beliefs, values, skills, interests, hobbies, location, and images.

Building a digital identity. Knowing how to manage the set of information published about me on the internet, which reflects my image and determines my digital reputation, that is, how other people see me in this environment.

Privacy management. Being able to decide what, how, when, and where to expose my information and that of other people.

Risk management. Being aware of the risk situations that can arise on the internet and understanding how to manage or avoid them.

2.3 Creative and participatory use

Refers to the competencies that make it possible to use technologies creatively and take advantage of them for participation. Users, recipients, consumers, and audiences can become creators, producers, and authors. The creative and participatory dimension of digital citizenship involves:

¹⁶ Definition inspired by the "Global Citizenship Education Guide prepared by UNESCO"
<https://unesdoc.unesco.org/ark:/48223/pf0000233876>

Developing content. Knowing how to create, edit, and share valuable digital content, recognizing and respecting the ecosystem of copyright and open licensing.

Mitigating digital divides. Being able to work so that information technologies can be used to mitigate inequalities.

Having the capacity to innovate with ICT. Knowing how to use digital tools and processes for innovation projects.

Developing communication skills. Being able to interact, exchange, propose, express oneself, and socialize in a digital environment.

Using ICT for individual, community, and social transformation. Promoting the right to participation in democracy and commitment to the community, while using digital technologies as a tool of transformation.

3. Lines of action and objectives

In order to give effect to the foregoing definitions, three main lines of action are proposed, with specific objectives for each of them:

3.1 Digital Citizenship Governance

This line of action aims for the construction of Digital Citizenship to have an interdisciplinary, interinstitutional approach that cuts across the whole country. To that end, the main specific objective proposed is the institutionalization of the Digital Citizenship Working Group. This is a commitment to generating knowledge, recommendations, and actions that contribute to building comprehensive, coordinated public policies for the promotion and development of Digital Citizenship. The main objectives are:

- a. Identify the Digital Citizenship ecosystem, that is, the organizations that make it up, and the roles and relationships that exist in Uruguay. In addition, the aim is to consolidate ¹⁷ the Working Group, which will have to hold in-person meetings at a minimum frequency of once a month.
- b. Provide continuity and coordination to the many efforts being made as part of public policies on the subject, seeking to align the messages directed to citizens and their positioning on the public agenda.

¹⁷ The current members of the group were convened by UNESCO Montevideo and Agesic taking into account their track record on the subject. Over this period, a need has been identified to incorporate other organizations that bring perspectives not currently present in the group. In this sense, it is understood that this space is under constant construction and open to the incorporation of other organizations linked to the subject.

- c. Promote and protect the construction of Digital Citizenship.
- d. Address the subject of Digital Citizenship from different perspectives, reflecting on it from a holistic perspective.
- e. Be a consultative group that, through interinstitutional and multidisciplinary debate, generates recommendations and good practices that contribute to eliminating the factors and conditions that hinder the development of full Digital Citizenship.
- f. Establish Uruguay as a reference point on the subject at the regional and international levels.

3.2 Capacity building

This line of action aims to contribute to developing the competencies needed to use the digital environment in a responsible, safe, critical, reflective, creative, and participatory way. In this sense, it is considered necessary to continue working on the actions carried out ¹⁸ by the people involved in the subject, as well as to deepen the creation of spaces for articulation and coordination that strengthen the efforts of each of the country's organizations toward the construction of Digital Citizenship. The main objectives are:

- a. Have a one-stop shop for access to the educational resources that make it possible to work on the construction of Digital Citizenship.
- b. Design a common pathway for the development of digital competencies for different segments of the population.
- c. Design and develop products, reference resources, and theoretical content and program content for the exercise of Digital Citizenship at the national and regional levels, adapted or oriented to different audiences.
- d. Generate exchanges and shared dissemination about the different initiatives that each of the organizations working on the subject drives forward.
- e. Encourage and support, with resources and tools, debate and reflection on digital citizenship in the educational community, coordinating with the different key actors in education.
- f. Contribute to developing initial and continuing training actions for people who work in the public service and in key sectors such as health, finance, and education, among others.

3.3 Research

The line of action on research and generating debate seeks to promote opportunities for analysis and monitoring that contribute to evaluating the construction of Digital Citizenship through its dimensions of use and the strategic spheres

¹⁸ See Annexes

of action (social, economic, cultural, and political). This line proposes contributing to the design of evidence-based public policies. To this end, the main objectives proposed are:

- a. Carry out joint research on the different ways in which citizens use ICT.
- b. Have a one-stop shop for access to research related to Digital Citizenship.
- c. Keep information up to date on the evolution of the construction of Digital Citizenship.
- d. Carry out specific research.

BIBLIOGRAPHIC REFERENCES

BATTRO, Antonio. "Los presidentes también se educan", in: Neurociencias para presidentes, Editorial Siglo XXI, Buenos Aires, 2017.

BOYD, Danah. It's complicated. The social lives of networked teens, Yale University Press, London, 2014.

BUCKINGHAM, David. La educación para los medios en la era de la tecnología digital, Lecture, Rome, 2006.

EUROPEAN COMMISSION. Digital Citizen Handbook, 2019.

GARCÍA CANCLINI, Néstor. Diferentes, desiguales y desconectados. Mapas de la interculturalidad, Gedisa, Barcelona, 2005.

JENKINS, Henry. Confronting the Challenges of Participatory Culture: Media Education for the 21st Century, Mac Arthur, United States, 2007.

LANDI, Oscar. Cultura y política en la transición a la democracia, Sociedad, Venezuela, 1984.

MORDUCHOWICZ, Roxana. Ruidos en la web. Cómo se informan los adolescentes en la era digital. Penguin Random House Editorial, 2018.

MORDUCHOWICZ, Roxana (2019). Un recorrido histórico: De la Educomunicación a la Ciudadanía Digital, UNESCO, 2019.

MORDUCHOWICZ, Roxana. El capital cultural de los jóvenes. Fondo de Cultura Económica, Buenos Aires, 2003.

PÉREZ TORNERO, José Manuel; TEJEDOR, Santiago (eds.). Guía de tecnología, comunicación y educación para profesores. Preguntas y respuestas, Editorial UOC, Barcelona, 2014.

PRENSKY, Marc, "Digital natives and digital immigrants", in: On the Horizon, MCB University Press, Vol. 9 No. 5, October 2001.

REGUILLO, Rosana. Emergencias de culturas juveniles. Estrategias del desencanto, Ediciones Norma, Buenos Aires, 2000.

UNESCO, Alfabetización mediática e informacional: currículum para profesores, Paris, 2011. Available online:
<http://unesdoc.unesco.org/images/0021/002160/216099S.pdf> (Date of last access: December 18, 2019).

WINCOUR, Rosalía. Robinson Crusoe ya tiene celular, Siglo XXI, Mexico, 2009.

WOLTON, Dominique, Internet y después, Editorial Gedisa, Barcelona, 2000.

ANNEXES

Background

Although the term "Digital Citizenship" is relatively new, it is relevant to highlight the contributions of several currents that, from different areas, have contributed to consolidating this term and to the relevance of addressing it.

From Educommunication, with Mario Kaplún (1923-1998), Paulo Freire (1921 – 1997), and Celestine Freinet (1896 – 1966) came the pedagogy of communication, reflection on the interrelationship between communication and education, education for critical reception, and the management of communication processes, among others.

In Media Education, the contributions of the British Film Institute (BFI) and its six categories of analysis ¹⁹ stand out, as do Len Masterman and his recommendations regarding what should be addressed in Media Education ²⁰, and David Buckingham and his emphasis on a critical understanding of how the media work, which makes it possible to understand how they represent the world and how they produce meanings and, at the same time, how audiences use them. The interest of the European Union (EU) in media education has grown over recent decades and reached its peak in early 2015, after representatives of the education ministries of the Member States (MS) signed the Paris Declaration. In addition to committing to promote and implement media education policies, in that declaration they agreed to focus on developing social skills, critical thinking, civic skills, social inclusion, and non-discrimination in the region's population ²¹.

19 Agencies: Who is communicating and for what purpose? Who produces the message? What are its intentions and ideology?; Categories: What type of document is it? What genre does it belong to? To what extent does the genre influence the understanding of the text?; Technologies: How is it produced? What technologies does it use and how do they influence the final product?; Languages: How does it convey what it wants to say? What codes and conventions does it use? Representations: How does it present the subject? What does it include and what does it exclude? How does it talk about social groups? Does it use stereotypes?; Audiences: Who is the message aimed at? How does it appeal to its audiences? How do audiences give new meaning to the content they receive?

20 Everything the media communicate is a construction. The media offer representations and constructions that respond to their editorial line, ideology, and intentions. Media education must uncover what these intentions are and analyze what each medium includes and excludes from the event it refers to. The media influence our perception of the world. Therefore, it is necessary to analyze the way in which these constructions affect our perceptions and ideas. Audiences give new meaning to messages. Each person interprets or "negotiates" meaning differently, depending on their personal, family, social, and cultural context. Media education must explore the particular way in which different audiences give new meaning to messages. The media answer to their owners. Media education seeks to analyze who owns the medium that issues the message and how this ownership influences the content it conveys. Each medium has its own language, aesthetics, and codes. Language remains a central axis of media education. This education must teach people to recognize the forms of the message and to analyze the way in which language affects content.

21 In 2016, the European Commission and the Council of Europe (CoE) published the report "Mapping of media literacy practices and actions in EU-28." It presents a state of the art of the MS in terms of the main actors involved and the projects developed on the subject, as well as which skills they have focused on and their level of significance.

The efforts of UNESCO should also be highlighted, in particular the conceptualization of “Media and Information Literacy for the Construction and Understanding of Digital Citizenship” ²² .

With regard to the conceptual frameworks on Digital Citizenship, those developed by the following organizations were examined in depth:

The Council of Europe (CoE), which developed the Digital Citizenship Education Project. To that end, the CoE carried out an extensive literature review and a survey of policies, programs, and projects, as well as several consultation exercises with key figures on the subject. In all cases, inputs were incorporated and experts from different regions took part (Europe, the United States, Canada, New Zealand, and Australia). For the development of the Digital Citizenship skills framework (10 Domains), the CoE considered it essential to incorporate a diversity of frameworks directly related to the subject. These frameworks cover models of media education, internet literacy, digital competencies, global competencies, social-emotional learning, and education in democratic culture and values. Thus the CoE takes up the axes of media education and defines Digital Citizenship as “the mastery of competencies that enable people to engage responsibly in the digital environment.” Digital Citizenship –from this perspective– includes a very wide range of competencies, such as the ability to create, share, socialize, research, communicate, learn, work, and play. It involves three major dimensions:

- Being online: Access to the digital environment. Ability to avoid any form of digital exclusion. Media and information literacy: thinking about technologies.
- Well-being online: Competencies for exercising ethical and empathetic behavior toward others. Healthy use of technologies. Responsible management of identity and digital footprint.
- Rights online: Competencies for participating in a democratic society and for recognizing the responsibilities and rights that make it possible to build a safe digital environment for everyone. Understanding of the concept of privacy.

For its part, the European Union (the European Digital Competence Framework) also defines digital competencies. In its view, digital citizenship includes the following aspects and dimensions:

- Information literacy: Ability to locate, select, and process information/content on the web. Analysis of sources.
- Communication and collaboration: Knowing how to interact and collaborate through technologies. Being able to participate in a digital environment.
- Digital content creation: Ability to create and edit digital content. Understanding copyright on the web.

²² Media literacy: refers to the ability to understand the role of the media in a democratic society, to critically evaluate the content they convey, and to use them for expression and participation. Information literacy: emphasizes access to information, knowing how to locate, evaluate, and process it, use it ethically, and communicate it to others.

- Safety: Ability to manage privacy. Knowing how to build a digital identity and protect one's reputation.
- Problem solving: Ability to identify problems and solve them in a digital environment.

In addition, since 2015, through the Digital Single Market strategy, the European Commission has developed various lines of work based on digital competencies. Specifically, since 2016, the Skills Agenda for Europe was created, which aims to address shortcomings in digital skills in the European Union through various instruments and initiatives, among them: the Digital Skills and Jobs Coalition, projects to promote coding training by students, and the funding of projects in education and digital skills, among others.

In the United States, the contribution of Harvard University stands out. There, the Youth and Media department drew up the dimensions that, in its view, a digital citizenship program should focus on:

- Privacy and reputation: Knowing what it means and how to manage it.
- Identity: Understanding how each person presents themselves on the web.
- Positive behavior: How to create kind and healthy relationships.
- Safety: How to protect personal information on the internet.
- Community engagement: How to use social media to raise awareness and drive change.

Lastly, bearing in mind that this is not an exhaustive list of the contributions and frameworks on Digital Citizenship, and knowing that there is much more material that has not been considered, the contributions of the DQ Institute are taken up. This institute, together with the World Economic Forum, also drew up a series of competencies that define Digital Citizenship. These could be summarized as:

- Knowing how to build a digital identity and understanding the effects of the footprint one leaves on the web.
- Using technology in a balanced way through self-regulation.
- Recognizing risk behaviors: identifying them and understanding how they affect internet browsing.
- Managing personal digital safety: understanding the notion of privacy, knowing what the risks are and how to avoid them.
- Expressing empathy; Knowing how digital behavior can affect others.
- Building digital literacy, understanding the structure and functioning of digital media.

National reference studies

The GTCD identifies the existence of measurement tools that are valid at the national level for delving deeper into the comprehension, understanding, and sizing of Digital Citizenship. Among them, we can outline:

Survey on ICT Usage (EUTIC): The EUTIC is a specific official statistical research effort to learn about the reality of access to and use of information and communication technologies in Uruguay. It is carried out by the National Institute of Statistics (INE) and Agesic. Its objective is to obtain reliable, quality information about access to ICT and its use by individuals and households. The thematic axes of the EUTIC are: "ICT Access," "Knowledge and Skills," "Internet and Cell Phone Use," and "Digital Government." The EUTIC is a key element for designing public policies on telecommunications and digital inclusion in the country and making decisions about them. This survey has been conducted for the years 2010, 2013, and 2016, and the 2019 edition is currently under way.

Survey of Knowledge, Attitudes, and Practices of Digital Citizenship (CAP): This is a study carried out annually by Agesic's Information Society area. It surveys the behavior of Uruguayans in dimensions such as ICT use and skills, trust in the web channel as a means of interaction with the State, and trust in the State as manager of web channels, among others.

Kids Online Uruguay: This is an empirical and systematic study of the risks and benefits of internet use among Uruguayan children. The study in Uruguay is part of Kids Online and Global Kids Online: a research and outreach network that seeks to generate comparative evidence on children's use of the internet around the world, in order to promote their rights in the digital age.

DQ: The study was created by the DQ Institute of Singapore with the aim of assessing the level of digital competencies in children aged 8 to 12, and promoting the development of Digital Intelligence (DQ), understood as the sum of the social, emotional, and cognitive skills that enable individuals to face the challenges of, and adapt to the demands of, digital life. The instrument consists of an anonymous online questionnaire in Spanish, made up of 60 questions that must be completed within one hour in a single sitting. The test makes it possible to assess three macro-levels ("Digital Citizenship," "Digital Creativity," and "Digital Literacy") and eight associated dimensions ("Online identity management," "Online privacy," "Online time," "Risks associated with internet use," "Cybersecurity," "Digital footprints," "Critical thinking," and online empathy).

International Computer and Information Literacy Study (ICILS): This is an international study developed by the International Association for the Evaluation of Educational Achievement - Netherlands (IEA). It was implemented in 2013 and 2018 in the various countries that took part. It is a standardized assessment that aims to determine students' preparedness for performing in the information age, determine the various factors that influence learning and the acquisition of digital competencies, and obtain comparable data on performance in digital competencies. In addition, the instrument makes it possible to obtain information on patterns of use of Information and Communication Technologies inside and outside the classroom, including attitudes toward technology and perceptions of functional ICT knowledge.

Profile of the Uruguayan Internet User. This is private research carried out by the company Radar every year since 2003. The research consists of surveys of

people on access to and use of ICT, delving into varied topics such as e-commerce, social media, types of devices used, browsers, etc. The survey is administered in two modalities, namely: a telephone survey of a random sample of 1,200 cell phone numbers aimed at people over 12 years of age, and a self-administered online survey of 2,000 cases of people over 12 years of age, recruited through ads purchased on Facebook.

World Internet Project + Uruguay (WIP+UY): This is a nationally representative survey of people who live in residential households. It is a product of the local adaptation of the World Internet Project questionnaire (replicated in approximately 50 countries) and, starting in 2016, in combination with the questionnaire of the DiSTO Project (From Digital Skills to Tangible Outcomes). WIP+UY 2013 corresponds to a sample of people aged 15 and over living in households across the country that have a landline.

WIP+DiSTO Uy: WIPUy + DiSTO consists of the integration of the WIP and DiSTO projects into a longitudinal study of Uruguayan adults. WIPUy + DiSTO adapts and validates the DiSTO questionnaire ("From digital skills to tangible outcomes") for Uruguay. It begins as a cross-sectional study of Uruguayan adults that moves in successive waves toward a statistically representative panel of adult internet users. The project is part of an international network in which Chile (Pontificia Universidad Católica de Chile), England (London School of Economics and Political Science), and the Netherlands (University of Twente) take part. In 2017, the second edition incorporates the DiSTO questionnaire (WIP+DiSTO) and was carried out through a representative survey of all adults (aged 18 and over) with a cell phone in the country.

De las tecnologías a los resultados tangibles. El rol de las habilidades digitales en el bienestar de los estudiantes de la educación media pública uruguaya (From technologies to tangible outcomes: the role of digital skills in the wellbeing of Uruguay's public secondary education students): It consisted of the adaptation, validation, and implementation of the DiSTO project on a very specific population: students of public Secondary Education in Montevideo. The aim of this research project was to gather empirical evidence on the relationship between digital skills, uses of digital resources, and the outcomes that arise from internet use at this specific moment in the life course of young Uruguayans. The study made it possible to describe which students are benefiting most from internet use, the role of digital skills in these outcomes, as well as their interactions in the context of formal secondary education. It is carried out by UCU and ObservaTIC-UdelaR.

Identified actions

The organizations that are part of the GTCD carry out a variety of actions that seek to foster safe, responsible, critical, creative, and participatory use. Below are some examples of actions:

Training and awareness-raising	<ul style="list-style-type: none"> • Free, open-enrollment online courses on Access to Public Information, Personal Data Protection, and Information Security. • Workshops on safe and responsible use for teachers and the general public. • Inclusion projects and programs with families, educators, adolescents, and the community. • Specific training courses for key referents. • Awareness-raising activities. • Course for educators “The Challenge of Educating for the Good Use of ICT.” • Awareness-raising stands. • Thematic modules for students in the 5th and 6th years of secondary education. • Virtual training for teachers and educators. • Digital Citizenship workshops (awareness-raising, good practices on the internet and social media). • Online moderation guide for families. • Neuroscience and Education. • Digital Citizenship Conference. • Gender and ICT (students in the 5th and 6th years of secondary education). • Youth IGF Uruguay (awareness-raising and training for young people on aspects related to internet governance).
Research	<ul style="list-style-type: none"> • Research on the reach of Plan Ibirapitá. • Research on citizen participation mediated by ICT. • Kids Online Uruguay report. • Promotion of research on the use, trends, and prospects of ICT.
Content development	<ul style="list-style-type: none"> • Design of content on different topics and for different profiles. • Development of platforms and of robotics and coding programs.
Participation	<ul style="list-style-type: none"> • World Children’s Day 2018. • Sowing Experiences. Gathering experiences of teachers and students with the use of ICT. • Secondary school students as protagonists of citizen participation. • Projects/programs of creative and participatory use. • Internet Governance Forum (IGF). • Girls in ICT Day. • Services basket. • Participation in the Latin American Center for Service-Learning.

Publications and other recommended titles

RIVOIR, Ana; LANDINELLI, Javier, “Gobierno Abierto y participación en políticas públicas mediadas por tecnologías digitales: análisis de un caso en Uruguay”, in: Revista Democracia Digital e Governo Eletrónico, Federal University of Santa Catarina, 2018. ISSN: 21759391.

BALL, Christopher; HUANG, Kuo-Ting; KHILNANI Aneka Khilnani, & Michael J. Stern "Digital Inequalities 2.0: Legacy Inequalities in the Information Age", in: Under review with Sociology Compass.

DODEL, M., “Un marco conceptual para evaluar el impacto de las TIC en el bienestar”, in: TIC, educación y sociedad. Reflexiones y estudios de caso a nivel iberoamericano”, – Volume 2, 2013. Available online:
<https://colombiadigital.net/herramientas/nuestras-publicaciones/educacion-y-tic/item/4448-tic-educacion-y-sociedad-reflexiones-y-estudios-de-caso-a-nivel-iberoamericano.html> (Date of last access: December 18, 2019).

DODEL, M. “An analytical framework to incorporate ICT as an independent variable”, in: Impact of information society research in the global south, Springer, Singapore, 2015 (pp. 125-144).

DODEL, M. E-skill's Effect on Occupational Attainment: A PISA-Based Panel Study. The Electronic Journal of Information Systems in Developing Countries, 69(1), 2015 (pp. 1-21).

DODEL, M. “e-Government's Hidden Inequality: Why Spending on Online Services can be Regressive and How to Avoid it”, in: Proceedings of the 9th International Conference on Theory and Practice of Electronic Governance, ACM, 2016 (pp. 68-74).

DODEL, M., AGUIRRE, F. “Digital inequalities' impact on progressive stages of e-government development”, in: Proceedings of the 11th International Conference on Theory and Practice of Electronic Governance, ACM, 2018 (pp. 459-463).

Dodel, M., & Mesch, G. (2018). Inequality in digital skills and the adoption of online safety behaviors. Information, Communication & Society, 21(5), 712-728. (on Israel)

Dodel, M; Méndez, I.; Fascioli, F. & Da Rosa, S. (2017) Digitally unheard: internet use in deaf and hard of hearing population. In CGi.br (ed.) ICT Households 2016: Survey on the Use of Information and Communication Technologies in Brazilian Households.

Dodel, M., Comesaña, F., & Blanc, D. (2019). A case of reverse-agenda setting? How 2018's FIFA World Cup coverage reduced media reporting of Uruguayan budget bill's yearly revision. Journal Details, 13.

Dodel, M., Kaiser, D & Mesch, G. (forthcoming) Determinants of cyber-safety behaviors in a developing country: the role of socioeconomic inequalities, digital skills and perception of cyber-threats. Under Review for publication in First Monday. (on Uruguay).

FASCIOLI, F. (2013) Imágenes que se escuchan, sonidos que se ven. Sistemas de accesibilidad audiovisual para personas con discapacidad sensorial y su desarrollo en Uruguay. In Revista Dixit, 2013 (pp.18:34-45). Accessed July 4, 2016. URL:
<http://revistas.ucu.edu.uy/index.php/revistadixit/article/view/362/337>

FASCIOLI, F. "The Audio Description of Juliana: Transcultural Considerations in Retelling a Cinematic Story for Blind People", in: *Transcultural Screenwriting. Telling Stories for the Global World*, Cambridge Scholars Publishing, Cambridge, 2017 (pp. 172-190).

Laura Robinson, Jeremy Schulz, Grant Blank, Massimo Ragnedda, Hiroshi Ono, Bernie Hogan, Gustavo Mesch, Shelia R. Cotten, Susan B. Krethmer, Timothy M. Hale, Tomasz Drabowicz, Pu Yan, Barry Wellman, Molly-Gloria Harper, Anabel Quan-Haase, Hopeton S. Dunn, Antonio A. Casilli, Paola Tubaro, Rod Carveth, Wenhong Chen, Matías Dodel, Julie Wiest

Laura Robinson, Jeremy Schulz, Hopeton S. Dunn, Antonio A. Casilli, Paola Tubaro, Rod Carveth, Wenhong Chen, Matías Dodel, Julie Wiest, Christopher Ball, Kuo-Ting Huang, Aneka Khilnani, Michael J. Stern, Grant Blank, Massimo Ragnedda, Hiroshi Ono, Bernie Hogan, Gustavo Mesch, Shelia R. Cotten, Susan B. Kretchmer, Timothy M. Hale, Tomasz Drabowicz

BIANCA, C; REISDORF; RHINESMIT, Colin; "Digital Inclusion Across the Americas and Caribbean", in: Under review with *Social Inclusion for ...*, Volume 8, Issue 1: "Digital Inclusion Across the Globe: What Is Being Done to Tackle Digital Inequities?"

MESCH, G; DODEL, M., *Low Self-Control, Information Disclosure and the Risk of Online Fraud. American Behavioral Scientist*, 2018

BARRY WELLMAN, Yan; HARPER, Molly-Gloria; & QUAN-HAASE, Anabel, "Digital Inequalities 3.0: Emergent Inequalities in the Information Age". Under review with *Sociology Compass*.