DIGITAL CITIZENSHIP EDUCATION

Volume 1
Overview and
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Foreword

I n 2016, the Steering Committee for Educational Policy and Practice (CDPPE) of the Council of Europe launched a new intergovernmental project on Digital Citizenship Education. The aim of this project is to contribute to reshaping the role that education plays in enabling all children to acquire the competences they need as digital citizens to participate actively and responsibly in democratic society, whether offline or online.

Most young people in Europe today were born and have grown up in the digital era and it is the duty of education to ensure that they are fully aware of the norms of appropriate and responsible behaviour with regard to the use of technology and participation in digital life.

Despite worldwide efforts to address issues concerning the role of education for the development of digital citizenship there is a clear need for education authorities to adopt a concerted and comprehensive approach to digital citizenship education and integrate it into school curricula to ensure that it is effectively implemented.

The Council of Europe's action with regard to the digital life of children over the last decade has been aimed mainly at their safety and protection in the digital environment rather than their empowerment through education or the acquisition of competences for actively participating in digital society.

Several legally binding instruments define the standards guiding the Council of Europe member states in their action to protect children in the digital age, and the European Court of Human Rights has developed case law on information and communication technologies and human rights. These instruments include:

- ▶ Recommendation CM/Rec(2009)5 on measures to protect children against harmful content and behaviour and to promote their active participation in the new information and communications environment, which encourages member states, in co-operation with the private sector, associations of parents, teachers and educators, the media and civil society, to promote media (information) literacy for children, young people, parents and educators, in order to prepare them for possible encounters with harmful content and behaviour;
- ▶ Committee of Ministers Recommendation Rec(2006)12 on empowering children in the new information and communications environment which calls on member states to develop a coherent information literacy and training strategy which is conducive to empowering children and their educators to make the best possible use of information and communication services and technologies.

The above-mentioned recommendations have been used as references and inspiration for the development of specific tools for teachers and students, such as the Council of Europe Internet literacy handbook for teachers, parents and students which explains how to get the most out of the internet and how to protect privacy on websites and social networks.

Building on the achievements of the current programme on Education for Democratic Citizenship and Human Rights Education and the results of the project on Competences for Democratic Culture, as well as co-operation activities with other sectors (UNICEF's Internet Governance and Children's Rights programme), the Steering Committee for Educational Policy and Practice decided to launch a pan-European project within the new programme of activities 2016-2017 that would encompass at least the following elements:

▶ a multi-stakeholder consultation/debate on policy issues regarding the place and better use of online resources and contemporary information technologies (social networking sites and Web 2.0 or Educational Web 2.0 sites as well as personal devices) in school settings (curricula and schools organisations) and mapping the administrative and legal responsibilities for school leaders, teachers, students and parents;

▶ a review of both formal and informal literature (blogs, wikis and websites). This review would examine the concept of digital citizenship, current digital education policies and contemporary digital education practices and challenges in schools;

▶ the development of policy guidelines to further support national authorities in developing digital citizenship education policies to address learning issues as well as the needs of students and to provide guidance in policy development to help protect students working in open, collaborative, online environments;

▶ the promotion and sharing of best practices from member states on effective interactive programmes for the acquisition of digital citizenship competence for students, through the curriculum, and for teachers, through initial and in-service education;

▶ a set of descriptors for digital citizenship education competence and guidance for the integration of such descriptors in current citizenship education curricula;

▶ development of partnerships with other sectors of the Council of Europe with regard to cross-cutting contemporary educational and legal issues that school authorities face today, such as cyberbullying, including cyber-misogyny, cyberbullying of teachers, privacy, sexting, digital addiction, student–teacher relationships through social media (Facebook), digital safe schools, freedom of expression online, and the human rights of students in digital settings.

The study of existing literature and new perspectives contained here is one of the first activities to be conducted under the project, and I would like to express my special thanks to the authors, Divina Frau-Meigs, Brian O'Neill, Alessandro Soriani and Vitor Tomé, all members of the Council of Europe expert group on digital citizenship education. The findings and recommendations of this overview will guide the expert group in its future work and the development of new activities.

The Council of Europe is well positioned for developing, at pan-European level, new policy orientations and approaches with regard to the challenges schools and society will increasingly face with regard to digital education. The Council of Europe already possesses an important set of standards and tools related to legal issues, rights and responsibilities and children, data protection, media literacy and, most importantly, the Charter on Education for Democratic Citizenship and Human Rights Education. The *acquis* and expertise accumulated during the last decade on citizenship education and the current work on the implementation of the charter will serve as a solid basis for the development of a new dimension of citizenship education and reaffirm the role of the Council of Europe as the leading organisation in this field.

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Executive summary

The purpose of this literature review is to examine the academic and policy literature on digital citizenship education (DCE), highlighting contributions in terms of definitions, actors and stakeholders, competence frameworks, practices, emerging trends and challenges primarily in the context of the member states of the Council of Europe, while noting other international contributions that have advanced the subject.

The corpus of literature reviewed consists of texts published between 2000 and 2017, and includes:

- ▶ peer-reviewed scholarly literature;
- ▶ policy guidelines and frameworks for digital citizenship, including those developed by international, national and intergovernmental agencies;
- ▶ other relevant literature produced by civil society organisations.

The inclusion of a wide selection of sources is intended to ensure sufficient coverage of what is an emergent topic that has yet to gain a strong foothold in either educational or academic literature but has received wider policy attention.

The review is organised into six main sections.

Section 1 addresses the core concept of digital citizenship. Fourteen different definitions and frameworks of competences are discussed and compared in order to get a better understanding of this complex topic. The concept of digital citizenship is said to involve not only digital and media literacy competences, but also other skillsets that appear in related discussions of participation, democracy, social engagement and human rights.

Section 2 describes the relationships between national policies on DCE and the role of industry. Social media industries and internet providers are key stakeholders involved in the definition and implementation of DCE policies, particularly in the context of data management, e-privacy and digital safety.

Section 3 examines digital citizenship as a "sense-making practice" and examines how digital culture has shaped practices which aim at long-term experiential strategies and which contribute to participatory and inclusive approaches to DCE.

Section 4 looks at emerging trends and considers how social literacy is prioritised within different approaches towards DCE. In a majority of the frameworks analysed, particular emphasis is given to social-relational skills and attitudes, so that values such as inclusion, diversity and empathy are seen as fundamental elements in the development of positive online participation. This section also includes a summary of emerging trends identified by a multi-stakeholder consultation that was carried out in tandem with this review.

Section 5 outlines the principal challenges to DCE implementation identified in the literature, which relevant stakeholders need to take into account in order to develop a comprehensive and effective strategy for DCE:

▶ developing and piloting descriptors for DCE aligned with the Council of Europe's Competences for Democratic Culture (CDC) framework;

▶ incorporating online and offline approaches as an integrated whole rather than as separate spheres;

▶ initiating DCE at an early age in order to achieve better, safer and "savvier" online participation, not just in formal education but also in informal and non-formal settings;

▶ accessing the large number of practices, projects and experiences dedicated to DCE across Council of Europe member states (a non-exhaustive review of sample projects is included in the review);

▶ harnessing the diversity of modes of participation brought about by digital technologies, particularly those most conducive to facilitating individual participation and social change;

▶ finding a comprehensive approach that balances the "hard literacies" related to science and technology education with "soft skills" and social literacy represents another challenge for education agencies.

In conclusion, Section 6 recommends a series of steps to develop DCE. Against the background of persistent risks related to the digital presence of the citizens, two key directions are proposed.

1. Implementation strategies
   ▶ develop descriptors for better defining digital citizenship competences (DCC);
   ▶ develop a visual model for DCC that illustrates the main forms of knowledge, skills, attitudes and values which digital citizens need to achieve;
   ▶ identify linkages between DCC and the Council of Europe's CDC;
   ▶ develop digital and non-digital resources for teachers and educators, for example through Massive Open Online Courses (MOOCs), apps, games, publications, etc.

2. Awareness strategies
   ▶ create and launch an awareness campaign to sensitise decision makers and policy makers and to promote the relevance of DCE when addressing current challenges;
   ▶ organise a conference exploring the recommendations of the "Digital citizenship education multi-stakeholder consultation report" and the results of the good practices survey.

Appendices 1 and 2 bring together 16 different DCC frameworks in order to provide an overview of the different values, attitudes, skills and knowledge proposed by various national and multinational approaches.

Appendix 3 presents a tool for the analysis of sense-making DCE practices that takes into account variables such as: vision, type of project, stakeholders, targets, funding systems, evaluation models, type of resources, settings, durations and sets of competences developed.

Introduction

The transformative and other forms of impact which the internet and digital technologies might have on societies and on citizenship have been the subject of longstanding scholarly speculation and debate. Much of this debate has focused on the supposed dislocation of the social from the physical environment brought about by electronic media. Meyrowitz's characterisation of a generational transformation of electronically mediated social interaction stands as a statement of the lessening significance of physical location – and human connectedness – for all social actors (Meyrowitz 1986). The philosopher Luciano Floridi predicted in the mid-1990s that in information societies, the threshold between online and offline would disappear, and proposed nothing short of "re-ontologizing" reality based on a seamless migration of all social interaction to an exchange between connected informational organisms (Floridi 2007). The French philosopher Bernard Stiegler has characterised such technological and industrial developments as the rise of a new "technical milieu" in which the human environment is transformed, impacting all economic, social and political processes (Venn et al. 2007).

The extent to which digital technologies pose ethical issues for human behaviour and for citizenship is a key focus within this scholarly debate. A dominant theme within the philosophy of technology has been the critique of the technological paradigm that radically separates labour and leisure, and undermines the social in favour of forms of industrial society based on effortless and thoughtless consumption (Ellul 1973; Borgmann 1987). The impact of technology in such debates challenges societies to address fundamental questions about the role and impact of technology and the extent to which social life is organised and priorities are set according to the demands of technological systems. Harnessing technology for societal good and for addressing major challenges in combating poverty, hunger and disease and supporting sustainable economic development is one form of response to this technological challenge. Furthermore, there is the so-called "moral agenda" of a responsible and accountable media culture in demonstrating responsibility for others in a world of great conflict, tragedy, intolerance and indifference (Silverstone 2004). This requires, according to Silverstone, a critical and literate citizenry, capable of engaging "with the reality of that difference, responsibly and humanely" (Silverstone 2004: 440).

This is the context in which the current review of DCE was undertaken. Citizens today live in communities that comprise distinct, multiple kinds of environments. The world which citizens inhabit has become a complex entanglement of physical reality, technologies, digital media and social networks. Therefore, citizens are faced with a whole new series of challenges and opportunities, and live, act and make choices as digital citizens. As defined in this review, digital citizenship refers to:

▶ the ability to engage competently and positively with digital technologies (creating, working, sharing, socialising, investigating, playing, communicating and learning);

- ▶ participating actively and responsibly (values, skills, attitudes, knowledge and critical understanding) in communities (local, national, global) at all levels (political, economic, social, cultural and intercultural);
- ▶ being involved in a double process of lifelong learning (in formal, informal and non-formal settings); and
- ▶ seamlessly defending human rights and dignity.

Drawing both on the large body of academic literature devoted to citizenship in the digital age as well as the extensive numbers of programmes and policies that have developed to promote good citizenship in a digital context, the aim of this review is to assess the emerging consensus on the definition of digital citizenship, as well as the appropriate aims and scope of a framework for DCE. Using the CDC[1] (Council of Europe 2016) as a starting point, the analysis focuses on the specific competences which citizens require as a result of their use of digital technologies to participate effectively in a culture of democracy. While the development of a set of descriptors of digital citizenship – what a person is able to do, having mastered the competences specified in the model – is the next stage of the project, the current phase is concerned with examining the contribution of existing literature from the diverse subjects of media and information literacy, various forms of technical literacy and digital competence, and approaches to supporting good citizenship at all levels of education.

The review begins with a discussion of the core concept of digital citizenship and the various forms of citizenship education that have been developed to address the challenges for citizens in a digital age. The various skills and competences that contribute to engaging in and through digital technologies are outlined, and a working definition is advanced. Digital citizenship is defined as a "sense-making practice" to which diverse stakeholders – including government, civil society and industry – contribute by creating and supporting opportunities for effective DCE. Good practices – in the sense of strategies which aim at long-term experiential impact and which contribute towards defining participatory and inclusive approaches to DCE – are examined and discussed.

A number of emerging trends are highlighted in the review. One key element concerns the priority given to social literacy aspects, including empathy towards others, as the basis of positive online participation. The review also highlights some of the main challenges for policy makers in implementing DCE. This includes: the complexity of the field, reflected in the lack of consensus – as well as competing perspectives – on the key constituent components of digital citizenship; the differing needs of different age groups; and the challenges of implementation in different sectors of education, both formal and informal.

Finally, the review makes a number of recommendations on the next steps needed to advance DCE, which focus on strategies to advance its implementation and to build wider awareness of its potential positive impact.

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1. Reference Framework of Competences for Democratic Culture (CDC).

Chapter 1

Digital citizenship: analysing definitions, actors and frameworks

Citizenship in the digital era and the concept of digital citizenship itself are increasingly evident in policy discourse and the subject of much debate, with accompanying academic literature (Common Sense Education 2015; Council of Europe 2016; Australian Government n.d.; Netsafe 2016; Ribble 2011). However, despite the widespread references to digital citizenship, there is no consensus on what it refers to precisely.

Within the literature, a range of synonyms or concepts closely related to digital citizenship are in evidence. These include:

- ▶ "global citizenship" (Parker and Fraillon 2016; UNESCO 2015);
- ▶ "global competence" (OECD 2016);
- ▶ "digital competence" (Ferrari 2013; Carretero et al. 2017);
- ▶ "digital consciousness" (IROC2 2010);
- ▶ "digital literacy" (MediaSmarts 2015; Meyers, Erickson and Small 2013);
- ▶ "digital media literacy education" (Mihailidis 2016);
- ▶ "media and information literacy" (Frau-Meigs and Hibbard 2016; UNESCO 2013).

Just as there are differences in the terminology used to designate digital citizenship, definitions of digital citizenship – while complementary in many respects – also vary. Historically, citizenship has been associated with "the rights and responsibilities of living in a community" (Impero 2016). However, in a digital age, citizenship straddles both offline and online worlds, referred to respectively as "real life (RL)" and "immersive reality (IR)" (*idem*). It is claimed that regardless of the extent of convergence between physical and virtual worlds, citizens must be digitally competent to be active citizens.

1.1. Definitions

A number of distinct though complementary definitions have been put forward both in the academic literature and in the many civil society initiatives promoting digital citizenship. A number of elements stand out within these definitions, and attributes of digital citizenship have been elaborated around those elements.

Firstly, a key element of digital citizenship identified in many definitions is the notion of digital "engagement", brought about through the competent use of digital technology. For instance, according to the Australian Government – Office of the eSafety Commissioner, digital citizenship is "about confident and positive engagement with digital technology", using it in an effective way in order to actively participate in society, communicate with others, and create and consume digital content (Australian Government n.d.). As argued by the New Zealand organisation Netsafe, engaging digitally is "a powerful enabler of inclusion in social, cultural and civil society" so that a digital citizen "can fluently combine digital skills, knowledge and attitudes in order to participate in society as an active, connected lifelong learner" (Netsafe 2016). However, digital citizenship is not just active engagement; it may be said to further denote "participation and responsibility" as well as "the opportunity to contribute to a better world" (eTwinning 2016).

Specific know-how or skills required for digital citizenship are also frequently referred to in the literature. Digital competence, sometimes abbreviated to DigComp, is a transversal competence that can be defined as "the confident, critical and creative use of ICT [information and communications technology] to achieve goals related to work, employability, learning, leisure, inclusion and/or participation in society" (Ferrari 2013).

Participation as a global citizen through the use of digital technologies is further cited as a distinguishing feature of digital citizenship. Global citizenship

> suggests an expanded notion of citizenship beyond the boundaries of state that is mediated by social and political contexts, opportunity and resources in addition to knowledge and attitudes and values (Parker and Fraillon 2016).

It "refers to a sense of belonging to a broader community and common humanity" and "emphasises political, economic, social and cultural interdependency and interconnectedness between the local, the national and the global" (UNESCO 2015).

According to the OECD, applying digital competence to a globalised context requires

> the capacity to analyse global and intercultural issues critically and from multiple perspectives, to understand how differences affect perceptions, judgments, and ideas of self and others, and to engage in open, appropriate and effective interactions with others from different backgrounds on the basis of a shared respect for human dignity (OECD 2016).

Thus, the attainment of skills required by citizens to participate effectively in a digital and globalised context is underpinned by the need for educational support. Embracing the opportunities that digital citizenship affords requires

> accurate education about the power of digital technologies and positive judgement while utilising these technologies, as well as the ability to develop and maintain meaningful relationships; appreciate one's own self-worth; interact with individuals of any age, culture and sex in respectful and appropriate ways; and express emotions in ways consistent with one's own values (IROC2 2010).

Educational support for digital citizenship is therefore a matter of digital literacy, a form of literacy that "encompasses the personal, technological, and intellectual skills that are needed to live in a digital world" (MediaSmarts 2015), for example, "create, work, share, socialise, investigate, play, work, communicate and learn" (Meyers, Erickson and Small 2013). Similarly, digital literacy is said to involve

> critical media literacy skills of analysis, evaluation, and comprehension and creation, but also those of design, participation, remix, cultural appropriation, engagement in diversity, listening, and cross cultural exploration (Mihailidis 2016).

The concept of media and information literacy (MIL) has been deployed to bring together the three distinct dimensions of information literacy, media literacy, and ICT or digital literacy. Acting as an umbrella concept, it is "a new literacy construct that helps empower people, communities and nations to participate in and contribute to global knowledge societies" (UNESCO 2013). MIL and internet governance are "the new basics" of education 3.0, which

> can provide children with competencies for co-operation, creativity and social innovation (...) nurture their human rights and understanding of shared values, which, in turn, will help to build more inclusive societies (Frau-Meigs and Hibbard 2016).

It is essentially

> a matter of education, of citizenship education, of the necessary literacy that allows individuals to truly participate in society. We need strong education policies that include at its core MIL education (Torrent 2014).

Accordingly, recent research results posit media literacy as "an important resource to fulfil the promise of digital citizenship" (Martens and Hobbs 2015).

In summary, digital citizenship may be said to refer to:

▶ competent and positive engagement with digital technologies (creating, working, sharing, socialising, investigating, playing, communicating and learning);

▶ participating actively and responsibly (values, attitudes, skills, knowledge) in communities (local, national, global) at all levels (political, economic, social, cultural and intercultural);

▶ being involved in a double process of lifelong learning (in formal, informal, non-formal settings); and

▶ continuously defending human dignity.

1.2. Actors and frameworks

Digital citizenship implies and relies upon DCE, the principal aim of which is

> encouraging and developing learning opportunities for youth to develop their online proficiency, engagement and creativity, rather than focusing exclusively on the ways in which digital media can be used detrimentally (Kids Define the Line 2013).

DCE means "situating global citizenship in an educational context, describing the knowledge, skills, values and attitudes fostered through teaching and learning about global citizenship" (Parker and Fraillon 2016).

Teaching and learning opportunities for digital citizenship occur in formal, informal and non-formal contexts. However, given the crucial role of formal educational settings in empowering citizens, the challenge for policy makers is to develop an appropriate educational framework that establishes a comprehensive approach for DCE and its structured integration into school curricula for its effective implementation (Jones 2010).

An appropriate educational framework is necessary not just for the development of effective learning opportunities at any level, whether in early years settings or throughout lifelong learning; it is also fundamentally important for the training of teachers. Here, the literature points to the resistance frequently found in teachers who are not prepared to educate for global citizenship. While recognising that there is still much work to be done at this level, it is argued that global citizenship education must be integrated into "teacher education programs through a holistic approach" (Guo 2014).

1.2.1. Multinational frameworks

Preparation for democratic citizenship is a fundamental objective underpinning the Council of Europe's CDC project, which is the guiding framework for the current review. The CDC project has developed a competence model which applies "to democratic and intercultural situations in the physical world" as well as to DCE (Council of Europe 2016). The model is organised in four areas of competence (referred to collectively as VASK):

- ▶ values (valuing human dignity and human rights; valuing cultural diversity; valuing democracy, justice, fairness, equality and the rule of law);
- ▶ attitudes (openness to cultural otherness and to other beliefs; respect; civic-mindedness; responsibility; self-efficacy; tolerance of ambiguity);
- ▶ skills (autonomous learning skills; analytical and critical thinking skills; skills of listening and observing; empathy; flexibility and adaptability; linguistic, communicative and plurilingual skills; co-operation skills; conflict-resolution skills);
- ▶ knowledge and critical understanding (of the self; of language and communication; of the world: politics, law, human rights, culture, cultures, religions, history, media, economies, environment, sustainability).

The model will be operationalised through a set of descriptors (learning outcomes) which are currently in the process of being developed and tested.

The OECD project The Future of Education and Skills: Education2030 aims to present an overview of the knowledge, skills, attitudes, values and competences required for the world by 2030, in order to support curriculum design from pre-school to higher education. The three main dimensions are: knowledge (disciplinary, interdisciplinary and practical); skills (cognitive and meta-cognitive, social and emotional, physical and practical); and attitudes and values (to be identified later) (OECD 2016).

Over time, the project also aims to inform the development of data, measurement, assessment and specific, effective interventions. At this early phase, its focus is on school curricula at secondary level. In order to define the elements of global competence, 15 year-olds from over 80 countries will be tested during the PISA 2018 Global Competence assessment through cognitive tests (for example, analytical and critical thinking) as well as through a Likert scale questionnaire (for example, "empathy" and "flexibility" under the "skills" dimension, and "openness" and "responsibility" under the "attitudes" dimension).

In 2015, UNESCO created a framework for global citizenship education based on three domains of learning with respective key learning outcomes. These consisted of: cognitive outcomes (knowledge and understanding; critical thinking); socio-emotional outcomes (sense of belonging, values, empathy, solidarity, respect) and behavioural outcomes (responsibility, motivation, willingness). The framework also establishes key learner attributes and topics per domain, as well as learning objectives by age/level of education (5-9 years; 9-12 years, 12-15 and 15-18 years) (UNESCO 2015). The framework was developed for use by educators, curriculum developers, trainers, policy makers and other education entities working in non-formal and informal settings.

Following the incorporation in 2006 of digital competence as one of eight key competences for lifelong learning, the European Commission created a DigComp framework through the Institute for Prospective Technological Studies (JRC-IPTS) (Ferrari 2013). Its conceptual model has now been updated in response to the challenges of digitalisation (Carretero et al. 2017). The DigComp 2.1: The Digital Competence Framework for Citizens aims to be descriptive and non-prescriptive and may be used in education, training and employment at different levels, namely: policy formulation and support; instructional planning; and assessment and certification. Five competence areas are included: information and data literacy; communication and collaboration; digital content creation; safety; and problem solving. The framework encompasses a total of 21 competences, operationalised in 168 descriptors that are part of the eight levels of proficiency: Foundation (levels 1 and 2), Intermediate (levels 3 and 4), Advanced (levels 5 and 6), and Highly Specialised (levels 7 and 8) (Carretero et al. 2017).

1.2.2. Selected examples from Council of Europe member states

Finland

The Finnish Ministry of Education undertook the As a Global Citizen in Finland project (2010-11). The aim of the project was "to put together a vision for the key premises, challenges and opportunities in terms of education for global citizenship in a globalised world" (Jääskeläinen and Repo, 2011), while also preparing the new National Core Curriculum 2014, which was approved in 2016 and introduced in all grades at the beginning of the autumn term. Teachers, students, experts and other professionals reflected on competences for global citizenship (knowledge, skills, attitudes, values and will), the outcome of which formed the basis of the so-called "flower model" (see Appendix 2). In the centre of the flower stands the Global Citizen's Identity,

surrounded by the Global Citizen's Ethics. The flower then has six petals: intercultural competence; sustainable lifestyle; global citizen's civic competence, global responsibility and development partnership, global citizen's economic competence, and learning challenges. The last of these is accompanied by a question mark since "amidst the rapid change of the world, even competence cannot be static and it is therefore necessary to leave room for continuous reflection, new questions and definitions" (Jääskeläinen and Repo 2011).

France

In 2015, the French Ministry of Education undertook a major effort to reshape the educational system with its publication of "*Le parcours citoyen*" (The citizenship journey), a set of five initiatives to be developed from pre-school to secondary level with the aim of empowering young people to become active citizens. The framework includes the following elements:

▶ moral and civic education (the basis of rules governing individual and collective behaviour; pluralism of opinions, beliefs and lifestyles; respecting rights and the law);

▶ media and information literacy (reading and deciphering information and images; sharpening critical thinking; forming an informed opinion);

▶ students' participation in the social life of the school and its environment;

▶ enrolling apprentices in debate and philosophy workshops;

▶ preparing for Defence and Citizenship Day.

Students' competence in these areas shall be assessed at the end of the compulsory schooling (Ministère de l'éducation nationale, de l'Enseignement supérieur et de la Recherche 2015). In March 2015, the Ministry of Education published a new "Core set of knowledge, competences and culture" (Décret 2015-372 2015) which applies to the compulsory schooling period (6 to 16 years of age). Its main objective is to give students "a common culture" and the necessary tools to thrive, to succeed academically and to integrate into society as participatory citizens. The core set, which was implemented by schools in September 2016, is organised into five main areas: languages for thinking and communicating; methods and tools for learning; training the person and the citizen; natural systems and technological systems; and representations of the world and human activity (see Appendix 2).

United Kingdom

In the United Kingdom, the civil society organisation Childnet International seeks to ensure that all children and young people "are equipped with the knowledge and skills to be able to navigate the online environment safely and responsibly", and helps to shape and influence "policies and programmes which prioritise the rights of children so that their interests are both promoted and protected" (Childnet International 1995) through lobbying policy makers, internet regulators and industry. Its educational framework offers a set of resources for primary school students (for example, tips, videos, quizzes and games) and secondary school students (for example, tips, videos and information on hot issues such as cyberbullying, online

reputation, sexting, social networking, apps and security), as well as for teachers and professionals (for example, the Childnet Digital Leaders Programme) and for parents and carers (for example, advice on how to deal with children and a helpline). Childnet works in partnership with experienced projects and institutions such as the UK Safer Internet Centre and Nominet Trust. It also runs three other projects/websites in the UK – www.digizen.org, KidSMART and the Youth IGF Project – which deliver information and resources for children and young people, teachers and professionals, parents and carers (see Appendix 2).

Estonia

The Republic of Estonia has "no formal media education policy" (understood here as a synonym for DCE) and "no clear authority in Estonia whose duty is to oversee media education" (Siibak 2016). Nevertheless, a comprehensive list of Estonian media literacy stakeholders includes academia, public authorities, audiovisual content providers and especially civil society, which runs the majority of the media education initiatives. In a recent national report produced for the European Audiovisual Observatory, the 20 most significant media literacy projects delivered since 2010 were identified and organised by type, sectors involved and core media literacy skills:

- ▶ research projects developed by academia and focused on creativity (creating, building and generating media content);
- ▶ resources and development projects organised by audiovisual content providers aimed at developing critical thinking (for example, understanding how the media industry works and how media messages are constructed; questioning the motivations of content producers in order to make informed choices about content selection and use; recognising different types of media content and evaluating content for truthfulness, reliability and value for money; and recognising and managing online security and safety risks);
- ▶ campaigns run by public authorities regarding intercultural dialogue (for example, combating radicalisation and hate speech);
- ▶ provision of funding by media regulatory authorities for media literacy activities delivered by third parties and focused on media use (the ability to access, search, find, navigate and use media content and services);
- ▶ networking platforms (for example, social media and search engines) developed by online platform owners and aimed at improving participation and interaction (interaction, engagement and participation in the economic, social, creative, cultural aspects of society through the media and promoting democratic participation and fundamental rights).

Civil society also contributed to policy development via consultations, published reports and recommendations. Finally, some cross-sector collaboration promoted end-user engagement projects such as grass-roots projects that provide support and information to end-users via face-to-face contact, phone contact or online contact.

Portugal

In Portugal, an expert working group appointed by the government in May 2016 is currently developing a new national strategy for citizenship education. In addition to invited experts, the working group involves representatives of the Secretary of State for Citizenship and Equality; the Secretary of State for Education; the National Commission for Citizenship and Gender Equality; the High Commission for Migrations; the Directorate-General for Education; the School Libraries Network; the Directorate-General for Health; and the National Association of Municipalities (Despacho 6172/2016). Currently, citizenship education is a transversal area in terms of the formal curriculum, and can be scheduled in three ways: as a school offering; as a complementary curriculum component with attendance credit; and in activities and projects (Decreto-lei 139 2012; Decreto-lei 91 2013). According to the official formal curriculum, citizenship education includes sub-areas such as: human rights education; environmental education/sustainable development; road safety education; financial education; consumer education; entrepreneurship education; education for gender equality; intercultural education; education for development; education for defence and security/peace education; volunteering; media literacy; the European dimension of education; and health and sex education. The Directorate-General for Education has given considerable support to its development, supporting initiatives, providing resources and promoting its creation, including references to all the sub-areas of citizenship education.

Following a request by the Ministry of Education, the National Education Council drafted a curriculum proposal on citizenship education for the primary and secondary school levels (Santos 2011). This established four core competences – decentring and empathy, critical and creative thinking, communication and argumentation, and participation – which need to be developed in order to achieve four learning outcomes: rights and responsibilities; democracy, processes and institutions; identities and diversities; and interdependency and globalisation.

Croatia

Croatia has no official media education policy (Kanižaj, Car and Kralj 2014). The Croatian curriculum lacks a comprehensive programme of media literacy at all levels (International Exchange Alumni 2015), creating a gap in awareness among parents/caregivers and children of the importance of media literacy (Zvonarić 2016a). Following on from the Let's Choose What We Watch project launched in 2015 by the Agency for Electronic Media (AEM) and UNICEF, in 2016 these organisations launched a new online portal for media literacy (www.medijskapismenost.hr/) in co-operation with the Croatian regulatory authority, the Academy of Dramatic Arts, the Faculty of Political Science, the Institute of Lexicography, the Croatian Audiovisual Centre (HAVC) and the Croatian Film Association. The online portal aims to empower parents, caregivers and teachers, who can learn from the website and produce new content for it, focusing on areas such as internet safety, violence in media, stereotypes, media influence and tips on how to deal with specific situations (Zvonarić 2016b).

Although the Croatian Government has yet to define a media literacy policy, a number of civil society organisations working in the field, such as Telecentar (telecentar.com.hr) and GONG (gong.hr), have implemented media literacy projects focusing on teacher and student training, media production and the creation of standards. It is now implementing the European Youth News Exchange (Y-NEX) project and is planning a new project that will combine design, coding and multimedia content production for youth (Media Lab) and children (Game Lab). Its training activities aim to develop competences such as "Communication and collaboration" and "Digital content creation" (sound, photography, video, web, game). Telecentar is also trying to establish a national coalition called Digital Agenda for Creative Croatia, as a part of the EU Digital Skills and Job Coalition. The national coalition will focus on areas that will include: raising public awareness of social changes caused by digital technologies; building capacity of educational institutions related to development of digital competences; and developing digital entrepreneurship.

GONG, a well-known Croatian NGO founded in 1997 that aims to promote human rights and empower citizens to participate in the political processes, runs programmes which focus on media education and DCE. Education for Civic Literacy, the first programme which started in 2002, includes a teacher training course on political and media literacy comprising 40 to 50 hours of training over the course of a year. The course is based on a specific set of skills, attitudes, knowledge and critical understanding (see Appendix 2). The second programme is Digital Ecosystem for E-Participation linking Youth (DEEP-linking Youth), which is led by European Citizen Action Service (ECAS) and which aims "to use e-participation as an instrument to foster young people's empowerment and active participation in democratic life" (ECAS 2016).

1.2.3. Selected international examples

New Zealand

The New Zealand NGO Netsafe has developed a digital citizenship framework based on four key elements – skills, attitudes, knowledge and understanding – to be used by e-citizens in order to achieve the digital fluency needed "to participate in life-enhancing opportunities (social, economic, cultural, civil) and achieve their goals in ways that make an important difference" (Netsafe 2016). Since it is crucial to identify the specific needs of each community of learners, the organisation has developed "process indicators" that will be ready for trial in 2017 in New Zealand schools. These are organised around three overarching themes: learn (competences and values to keep themselves and others safe online), guide (support student learning and develop a culture of positive digital technology) and protect (monitor online access at school and safe and secure digital learning policies).

Australia

Building on research into attitudes to digital citizenship among community, industry and non-profit sectors, and following an extensive review of existing programmes and resources, the Australian Government – Office of the eSafety Commissioner has

developed a set of lesson plans (including worksheets) for both primary and secondary levels, to be implemented under the subjects of health and physical education, civics and citizenship, and technologies. Lesson plans are based on three core principles: engage positively (exercising rights and responsibilities; respecting the rights of others), know your online world (acquiring skills and knowledge such as how to use technology and participate, understanding digital languages, protecting the digital footprint, how to take action), and choose consciously (interacting safely online, using digital literacy and know-how to protect oneself and others).

Canada

Canada's Centre for Digital and Media Literacy, MediaSmarts, developed "Use, understand & create: A digital literacy framework for Canadian schools", a set of supporting lessons and interactive resources that are linked to curriculum outcomes for each province and territory. Organised by academic level (Grades K-3, Grades 4-6, Grades 7-8 and Grades 9-12), the framework draws on seven key aspects of digital literacy: ethics and empathy; privacy and security; community engagement; digital health; consumer awareness; finding and verifying; and making and remixing. Lesson plans are supported by parent tip sheets that are linked to each resource (MediaSmarts 2015).

United States

In the United States, the International Society for Technology Education (ISTE) published in 2016 the latest revision of the *ISTE Standards for Students*, which describe the 28 skills and knowledge areas K-12 students need in order to live actively in a digital society. Standards are organised in seven groups: empowered learner, digital citizen, knowledge constructor, innovative designer, computational thinker, creative communicator, and global collaborator. ISTE has also made available standards for teachers, administrators, computer science educators and coaches. All standards work together, aiming to help education move away from "the factory model". Through its work, ISTE has access to a national and international community to which it offers professional learning, pedagogical and technological resources as well as advocacy (ISTE 2016).

Also in the USA, Common Sense Education's *Scope and Sequence: K-12 Digital Citizenship Curriculum* was designed to "empower students to think critically, behave safely, and participate responsibly in our digital world". The 80 lessons and supporting materials available (for example student handouts, assessments, educational videos, family tip sheets and professional development resources) are organised in units that target specific grades (K-2, 3-5, 6-8, 9-12), aiming to involve students, families and educators. The curriculum is organised into eight areas: privacy and security; digital footprint and reputation; self-image and identity; creative credit and copyright; relationships and communication; information literacy; cyberbullying and digital drama; and internet safety. Each grade band has three curriculum units, each unit has five lessons and each lesson deals with one or more of the eight curriculum areas (Common Sense Education 2015).

1.3. Conclusions

Bearing in mind the diverse designations, definitions, actors and educational frameworks that address digital citizenship around the world, there is no doubt that it is a topic which has gained in importance and prominence in the recent period. The following three core ideas arise from this review.

1. While there is no single definition of digital citizenship, there is an emerging consensus around the idea that digital citizenship in an educational context is a transversal dimension that involves the values, skills, attitudes, knowledge and critical understanding which citizens require in the digital era. There is also agreement that DCE is needed to embed digital citizenship. Furthermore, DCE is needed in formal, non-formal and informal educational contexts, engaging children and young people, families and carers, teachers and professionals as well as other members of the community in order to sustain digital citizenship. Currently, the main focus is primarily within the formal educational context.

2. In a globalised, multilingual and multicultural world, implementation of digital citizenship needs to be underpinned and supported by research in order to be inclusive and evidence-based. For this reason, most international frameworks (for example, UNESCO's "domains of learning" and the European Union's DIGCOMP) are descriptive rather than prescriptive. First of all, digital citizenship deals with values, and values differ from one place to another. Secondly, digital citizenship is for all, regardless of skills, attitudes or knowledge, and initiatives to support its implementation need to be developed within this context.

3. Effective implementation of digital citizenship requires regular monitoring and assessment. Furthermore, assessment instruments need to be adapted to the context which is going to be assessed. This is the way to improve its implementation and to continue empowering digital citizens at an incremental level. Digital citizenship is a lifelong process, not a state which people can reach after a training course.

Chapter 2

Differing perspectives

W hile there is an emerging consensus in the approaches adopted by transna-
tional and intergovernmental actors (UNESCO, the Council of Europe, the
European Commission, etc.) towards conceptualising DCE, it is also the case
that the different stakeholders involved (member states, civil society organisations
and industry groups) bring distinct perspectives to bear on what digital citizenship
means and how it may be best fostered. In this section, we briefly characterise the
principal differences and similarities of DCE policy as exemplified in industry inter-
ventions and at the level of national policy and practice.

2.1. The role of industry in digital citizenship education

Digital citizenship is a topic that has had increasing prominence in industry discourse,
particularly in the context of promoting trust and consumer confidence in the online
environment. Against a backdrop of public concern over abuses experienced in
online social media environments and of calls for stronger regulation of the industry,
companies have been at pains to emphasise the safeguards in place and the policies
adopted which encourage safe and responsible use of their services. In this context,
digital citizenship is a concept which online service providers have increasingly
embraced as an expression of the values of positive online interaction that they wish
to promote.

Supporting young people to be active digital citizens in a safe online environment
is the stated objective of European youth digital policy, reflecting an important focus
for the European Union since the mid-1990s (European Commission 1996). The wider
context for Europe's digital agenda may be described as a co-regulatory approach
to industry (Tambini, Leonardi and Marsden 2007), with the European Commission
overseeing self-regulatory arrangements and initiatives to promote fundamental
rights and democratic values through multi-stakeholder governance structures
(European Commission 2014). However, in order to achieve these objectives, the
overriding responsibility on industry to deliver safety measures and to promote
positive, pro-social use has been a central tenet of this approach to internet
governance.

For its part, industry has long promoted its support for digital citizenship as a part of corporate social responsibility that is voluntarily undertaken as opposed to an obligation imposed through regulation (Ságvári and Máder 2013). As mere inter-mediaries, industry service providers may claim – and frequently do so, as, for example, under the provisions of the E-Commerce Directive 2000/31/EC (Verbiest and Spindler 2007) – that they do not have responsibility for the content on their platforms, on the basis that they provide common carrier communications services to end-users. However, the literature on internet governance highlights both the ethical respon-sibility of industry providers to act as good "digital citizens" (Cohen-Almagor 2010; O'Neill 2012) and growing concerns about liability in the face of egregious online abuse (Stedman 2007; Cheung 2014; Martins and Longhi 2014).

One of the ways in which industry has communicated its position regarding digital citizenship has been through codes of conduct, which set the standards, rules and responsibilities of industry in relation to the use of their services, particularly with reference to young people's safety and well-being online. In a European context, pan-industry codes of conduct have been a key feature of the self-regulatory approach to governance. While the main focus of industry codes of conduct is to define min-imum standards of safety which an industry undertakes to provide, they also act to articulate shared principles and values to which participating companies subscribe and by which they abide; industry codes of conduct also define a sectoral consensus of the values of digital citizenship espoused by industry members.

Reviews of self-regulatory practices by industry in the literature (Macenaite 2016) highlight some of the common themes that have an impact on digital citizenship. One example is the theme of user empowerment and commitment to user education about appropriate behaviour online, as illustrated in the voluntary code adopted by social networking providers in the form of the "Safer social networking principles for the EU" (European Commission 2009). A key element of the regulatory framework for the mobile telecommunications sector is the "European framework for safer mobile use by younger teenagers and children" (GSMA 2007), while statements of purpose by various industry coalitions or alliances (ICT Coalition 2012; CEO Coalition 2012) set out general principles under which the industry operates and to which it adheres in the provision of internet and online communications services.

As a rule, industry codes of conduct underscore the need for industry operators to act responsibly in the provision of services accessed by young people, while noting the limits to their liability for content which they do not control or directly commission, for example regarding user-generated content. Typically, industry policy also points to the extensive benefits and opportunities which new technologies have generated for citizenship more generally, in terms of communication, information, e-commerce and entertainment. As noted in the "Safer social networking principles for the EU", social media have triggered further evolution in the way people – especially young people – communicate with friends, access entertainment and engage with commu-nities of interest (European Commission 2009: 3). Yet, from an industry perspective, underpinning the negotiation of online risks and opportunities is a recognition that users have the ultimate responsibility to protect themselves, to comply with the acceptable use policies of online services and to develop the necessary levels of digital citizenship to gain the maximum benefit from online interaction.

Accordingly, a key emphasis in the industry approach – and the main responsibility to which companies voluntarily commit – is on raising awareness and user education. Thus, for example, the "Safer social networking principles for the EU" refer to the responsibility of industry to "create clear, targeted guidance and educational materials designed to give children and young people the tools, knowledge and skills to navigate their services safely" (European Commission 2009: 6). Similarly, mobile operators undertake to "provide advice and effective access to information regarding the use of mobile phone services" (GSMA 2007: 2). The "good practice principles" of the ICT Coalition for Children Online go somewhat further and refer more explicitly to users' obligations to behave responsibly towards other users (ICT Coalition 2012: 1), underpinned by industry members' commitment to provide access to information "about media literacy and ethical digital citizenship" (ICT Coalition 2012: 4).

Notably, implicit in the references to industry's role in raising awareness or in user behaviour education is the recognition of the need for digital citizenship on the part of users, brought about in part by better awareness of the rules pertaining to each service. Terms of use or community guidelines are therefore of particular importance in setting the parameters of online behaviour, and they identify the nature of the online community and the standards of digital citizenship envisaged by each service.

In the first instance, terms of service are a condition of access to the services of the provider, a *de facto* set of rules to which users grant their consent when they first register to use the service. Terms of service act as a non-negotiated contract of adhesion between the service provider and user (Bailey and Brown 2014), variously outlining related issues of liability, ownership of content, assignment of intellectual property, what is acceptable in terms of use and what is prohibited. Notably, such agreements need not have regard for constitutionally based civil liberties or intellectual property rights (Braman and Roberts 2003), and are weighted heavily in favour of the private owners of online space, who are free to set the terms by which users are admitted. As such, despite the ostensibly democratic character of the affordances of online social interaction, in practice the social roles of consumers, users and platform owners more typically mirror the power relations and social inequalities found in society (Bailey and Brown 2014).

Terms of service are also notoriously legalistic and frequently go unread or ignored by users (Wauters, Lievens and Valcke 2014). A priority of policy makers, therefore, has been to encourage greater transparency in the way terms of service are communicated through encouraging less legalistic language and providing user-centred, accessible and child-friendly versions in the case of services popular with younger users (Wauters et al. 2014). At the same time, in the case of social media services the terms of service or community guidelines are a central resource in legislating for both positive aspects of digital citizenship and defining what is a breach of such policies. To date, little research exists that analyses the content of such policies or their efficacy in influencing community standards, although evaluation studies of the implementation of industry self-regulatory codes have highlighted some good practices in this regard (Donoso 2011), while some further research exists showing the ongoing testing of limits which operators and online communities face in seeking to uphold community guidelines (Nycyk 2016).

A review of the implementation of the ICT Coalition principles (O'Neill 2014) high-lighted some examples of industry practice in promoting digital citizenship. Principle 6 (education and awareness) requires signatory companies to provide up-to-date information and advice to users, their parents and teachers that will help educate them about "media literacy and ethical digital citizenship" to enable them to both think critically about online content and to use this information to assist them in dealing with issues arising from online use. Company implementation of digital citizenship in this instance ranged from support for awareness-raising campaigns such as Safer Internet Day, strategic alliances with NGOs and organisations dedicated to enhancing civic engagement, to more active engagement through delivery of education and training such as in-school demonstrations and visits, seminars and workshops and internships.

Accordingly, most major internet companies – including Google, Facebook and Twitter – have developed bespoke initiatives to promote digital citizenship on their platforms, often in partnership with external organisations. For example, Google's digital literacy and citizenship programme, developed in partnership with the US NGO iKeepSafe.org, includes lesson plans and educational materials on key concepts of critical literacy, managing digital reputation and cybersafety. The Web We Want (www.webwewant.eu/), a handbook and online resource aimed at 13-16 year-olds, is a notable example of partnership between Insafe and Liberty Global, filling an important gap by providing relevant, up-to-date curriculum materials for schools as they struggle to keep pace with demands for greater attention to internet safety education. In 2011, Facebook launched its Digital Citizenship Research Grants pro-gramme to support research projects that highlight trends associated with digital citizenship, with an initial focus on bullying prevention but also on the use of social media to foster positive online behaviour and extend learning opportunities.

Industry participation in digital citizenship may therefore be more broadly described as supportive of a multi-stakeholder approach to shared responsibility, or in other words, an approach which recognises that it is only through collaboration with all relevant partners at governmental level, in civil society, with educators and with communities of users that the appropriate conditions for effective digital citizenship are created (Bauwens et al. 2009). Thus, the position of industry is somewhat different to the regulatory approach adopted for the protection of minors in the traditional media arena, where more direct governmental and legislative regulation is deployed (Füg 2008). Yet, convergence in the evolving media landscape and demands for greater enforcement of industry's own self-declared standards inexorably point towards a redefinition of the industry contribution (de Cock Buning 2014). Proposals to establish a regulatory function for digital safety in the UK (Children's Commissioner 2017) and in Ireland (Law Reform Commission 2016), modelled on the Australian example of the Children's eSafety Commissioner, may serve to redefine industry's relationship with other stakeholders to one in which compliance is overseen by an external watchdog, lessening the motivation or need for industry to take the initiative in providing support for user empowerment.

Chapter 3
Practices

3.1. Conceptualising "good" practices into "sense-making" practices

The literature for defining and establishing the role of good practices is relatively limited, especially in contrast with the numerous descriptions of case studies and initiatives. Looking at the field of education, Benavente and Panchaud insist that such criteria are essential to verifying the claim that good practices are innovative, transformative and conducive to change (Benavente and Panchaud 2009). According to them

> they are organisational, pedagogical and educational realisations that help to solve a specific problem, such as an initiative to reduce social exclusion and school dropouts [...] or an initiative that fosters sustainable, operational links between the school and the local community, making the school an asset for the entire community (Benavente and Panchaud, 164, cited in Costa et al. 2017).

They concur with Frau-Meigs and Torrent (2009) that: such practices are bottom-up, community oriented and context based; they emerge from other spheres and initiatives than the formal, official school context; and they act as a kind of vent that adds flexibility to an otherwise rigid or rule-based educational system.

Benavente and Panchaud propose a classification of good practices in education according to six types: the showcase, the example, the work-in-progress, the "exception that proves the rule", the singularity and the lever for change (Benavente and Panchaud 2009: 166-7). This classification could be clustered in two major categories of good practices: "one-shot" practices (example, showcase, exception to the rule, singularity) and "experiential" practices (work-in-progress, lever for change). The first category relates to short-term practices that are local and based on individual or chance initiatives, and are focused on problem solving more than the evaluation of results. The second category relates to recurring longer-term strategies which focus on innovative needs-based processes and their collective management for current social change.

Neither of them should be devalued, as they provide an answer at a given time, although limited in scope as well as in time. In both cases, a kind of glass-ceiling of experimentation seems to be reached: new practices emerge continuously, re-inventing the wheel, as it were. This ceiling in turn brings a limit to transfer and duplication. Consequently, Operti suggests that they should be qualified as "sensible" practices rather than "good" or "best", for they are not prescriptive but rather intent on providing a contribution to a perceived need in a specific context (Operti 2009: 45). He insists on the fact that such practices do not aim at international transferability and that at best they can be inspirational and shareable in their visions and strategies.

Along the same lines, and to remove stress on would-be implementers and adapters, Frau-Meigs emphasises the need to look at such practices as "sense-making" mechanisms (Frau-Meigs 2013).

Looking more specifically at media education good practices, Parola and Ranieri insist on some limitations: "documentation of media education practices is often poor both in terms of information about instructional practices and in teacher reflection on their actions" (Parola and Ranieri 2011: 90). The results of their OnAir analysis – collecting and documenting practices in six European countries (Belgium, Bulgaria, Italy, Lithuania, Poland and Romania) – reveal that learning objectives are poorly delineated, learning processes are not very well evaluated and the actual levels of participation and creativity among students are hard to distinguish from the teachers' contributions.

The rise of digital culture has changed this perception of good practices: their participatory, bottom-up and horizontal nature is recognised, they have more visibility as they have online presence, they can disseminate their outputs (videos on YouTube, templates on their websites, etc.) and their transferability is envisioned in a way that was not possible before. They tend to give more credence to the experiential category than the "one-shot". They point to performance as phased adjustments needed at all levels of policy making, in a distributed, incremental, scalable, step-by-step perspective that provides hope of transferability.

Also, their status has improved, as they are increasingly recognised as part of the governance discourse. This discourse defines governance as a multi-layered decision-making process, with co-ordinated actions of various stakeholders (European Commission, member states, private and civic sectors) via regulation by public actors (Bevir 2013). It posits that some shared standard-setting documents and values are collectively implemented to shape the evolution of the issue at stake, such as digital citizenship. It also implies that reporting is necessary for accountability, that assessment and reflexivity are important for effectiveness and legitimacy (Geyer and Cairney 2015). Frau-Meigs, Velez and Flores problematise governance "to account for the increasing fragmentation of public decision-making together with the growing inter-dependence between state and non-state actors" (Frau-Meigs et al. 2017: 3).

Nested within this governance discourse, good practices are extolled as catalysts for change. But Frau-Meigs, Velez and Flores point to the risk of giving precedence to good practices over solid policy frameworks in media and information literacy: this process can lead to various degrees of disengagement of states and public authorities, with various degrees of externalisation to other social agencies and actors (see Figure 1: "Modelling MIL governance"). They point to a *trompe l'oeil* effect: on the one hand, the participation of other actors compensates the deficits of the public policy framework and the public sector; on the other hand, the participation of other actors drives capacity-building by the production of resources and, to a lesser extent, training by externalising these two dimensions to other non-formal education actors (Frau-Meigs et al. 2017: 27).

Figure 1: Modelling MIL governance
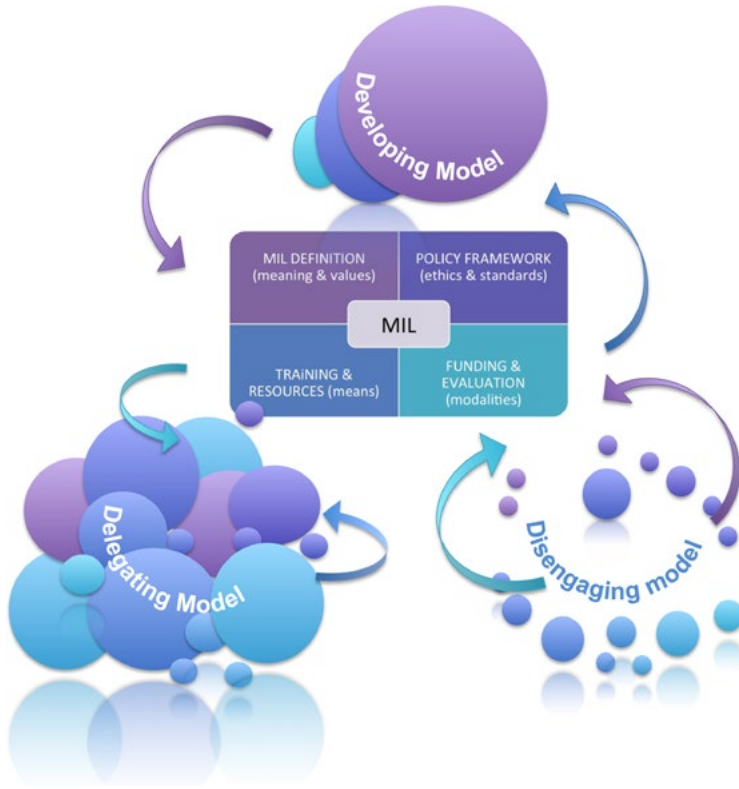
Source: Frau-Meigs, Velez and Flores 2017

They suggest that the public sector can take three different stances: a developing stance, a delegating stance or a disengaging stance. In the developing stance, the policy framework is strong, and the state is a driver of co-ordination and implementation. In the delegating stance, the policy framework is moderate, and the state is a supporter of other stakeholders (mostly civic sector, NGOs, etc.) that deal with the implementation of activities (with limited funding). In the disengaging stance, the policy framework is limited, and the state is a laggard, leaving most non-public actors to their own initiatives.

3.2. Methodological conundrums

The methodological challenges to conducting research on good practices are partly connected to the criteria for defining them. They are also partly connected to the field or sector in which they develop. The literature review for digital citizenship is thin, considering the novelty of this educational area. The three most recent consultations on good practices in the field of media and digital literacy were retained, as they all included references to citizenship. These three projects focus on the European situation and provide a representative but not exhaustive mapping. The first is the TRANSLIT/COST project on MIL policies that yielded reports for 28 European

countries in 2014 and included a section on "good practices". The second is the European Audiovisual Observatory report on media education practices in 2016. The third is the "Digital citizenship education multi-stakeholder consultation report" for the Council of Europe in 2016.

These reports were retained because of the scope of "digital citizenship": it is often part of other "literacies" which already exist and which include digital citizenship in their remit, not unlike media and information literacy. As a result, digital citizenship literacy is the locus of several competing frameworks, with recurring key notions the weight of which varies according to context-specific configurations. They can be constructed along the same lines as MIL in many ways, as digital media are constructed based on the assumption that they are key for engagement and empowerment (see Figure 2, below).

Figure 2: MIL epistemology
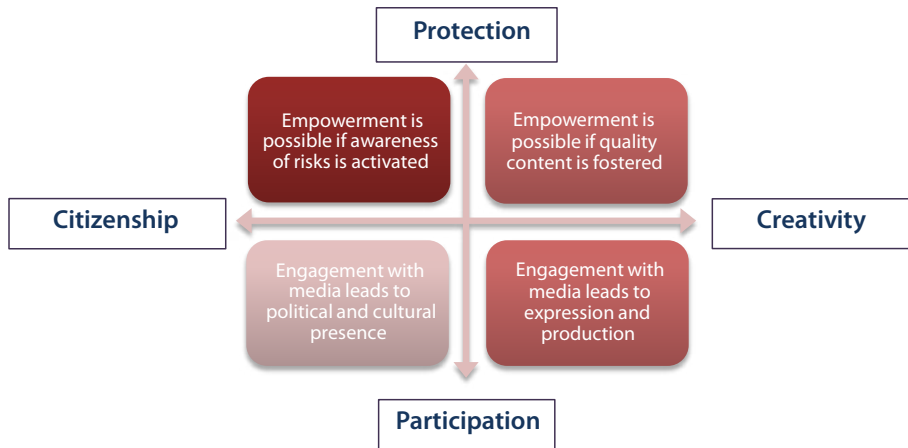
Source: Frau-Meigs 2017

In the TRANSLIT/COST project research, a good practice was defined "as having a certain amount of duration over time; a certain amount of national recognition; a certain amount of online existence and a connection to teacher or student training in a formal or non-formal setting" (First European MIL Forum 2014). The results were based on the analysis of 62 good practices across 28 countries (Costa et al. 2017). In the European Audiovisual Observatory report, the definition stated:

> In addition to some of the more historically common media literacy themes of critical thinking, digital inclusion, online safety and the protection of minors, media literacy projects that promoted a healthy democracy; empowered people in a changing and increasingly complex media landscape; and challenged radicalisation and hate speech online, countered political propaganda and promoted fundamental rights were of particular interest. (Cappello 2016: 4).

The results were based on more 547 featured good practices in 28 countries. In the Council of Europe report, a good practice was defined according to a seven-point list:

> has a positive impact on individuals and/or communities; has been proven through implementation to be effective in realising a specific objective; can be reproduced and is adaptable to different contexts; responds to current and future needs of the target population; is technically, economically and socially feasible and sustainable; contributes to an inclusive society, adaptable for individuals with special educational needs; is a participative process that is able to generate a feeling of ownership in those involved. (Richardson and Milovidov 2016).

The results were based on 62 projects in 47 countries.

All these reports had to factor in a number of challenges:

▶ absence of a common definition of digital citizenship across countries for effective comparisons;

▶ difficulty in identifying the policy framework for co-ordination and implementation as well as the capacity-building schemes for digital citizenship, in order to find appropriate actors and networks;

▶ lack of a common evaluation template for sense-making practices in order to establish their scope, significance and effectiveness;

▶ lack of a network of contact points or institutions specialising in digital citizenship for effective reporting in the field and reliable data gathering and analysis.

The reports shared similar solutions: national experts were identified; they completed a standardised questionnaire, including in-depth project summaries for the most significant good practices. Respondents were provided with definitions, guidelines and criteria to identify the most sensible projects in their respective country. The decision on the significance of the project was left to their discretion (which confirms the need to be cautious with "good" or "best" practices). The TRANSLIT/COST project decided to conduct an additional content analysis of the practices reported in order to avoid the bias of pre-established lists of definitions and competences, as these are usually not really visible in the project descriptors online and not what the project managers themselves would have suggested. The European Audiovisual Observatory focused on 145 case studies, while the Council of Europe looked at five case studies (Web We Want, ACES, KidZania, Daisy Chain, Digizen).

3.3. Strengths and weaknesses

The results confirm that with digital culture, sense-making practices tend to be more long term and more experiential than short term and "one shot". They also confirm the governance model with various ways of construing the role of good practices in European national policies. In addition, they fit the purpose of identifying the governance models of Europe for digital citizenship.

The compilation of reports makes it possible to suggest the construction of a robust heuristic tool which could be used in the future to measure sense-making practices in digital citizenship (see Appendix 3). Instead of following Benavente and Panchaud's classification according to six types, the digital citizenship descriptors were adopted (the "temple with its pillars" visual model): actors, resources, strategies, funding and evaluation. Among the strengths, "engagement" and "motivation" as well as "documentation" and "dissemination" appear as important characteristics of sense-making practices for digital citizenship. Among the weaknesses, the "competences disconnect" as well as the funding/evaluation catch-22 are indicative of some governance gaps.

3.4. The scope: engagement and motivation

Most practices in European countries tend to involve teens and teachers as main target audiences, with some related focus on children and their parents. This may be due to the fact that they are often the target of public policies and civic programmes. This can also confirm the role of good practices as compensatory mechanisms to update school curricula and introduce innovative pedagogies and themes, especially in the case of digital culture.

The main actors in good practices initiatives or realisation tend to be the public sector, non-profit associations/NGOs and academia. They are among the most referenced actors in the three compilations. This points to a certain amount of co-ordination by institutions or agencies which feel that DCE lies within their remit. Non-state actors – especially in the civic/associative sector – are also quite active, suggesting that they have an important role in the implementation of good practices. Multi-stakeholder initiatives and the private sector are less present in most countries. This weak role of the private sector points to a lack of perception that DCE can be necessary for the workforce of the future; a more concerted strategy of public-private partnerships may be necessary to promote DCE.

3.5. Documentation as dissemination

The good practices that stand out tend to be well documented and have a certain amount of online activity and visibility. Documentation (not assessment) makes it possible to share experiences, attain visibility and disseminate activities via website resources. This also encourages mainstream media to do some reporting, adding to the perceived significance of the project. Digital citizenship is about communication skills, so it is crucial to promote communication skills within good practices of digital citizenship.

Documentation and dissemination also allow DCE practitioners to go beyond the experimental stage and highlight consolidation and experiential practices which so far remain below the national radar level. Dissemination goes together with a high level of resources and a major trend in training. This confirms the existence of a kind of *trompe l'oeil* effect in DCE, as interesting experiences and good-quality materials are produced and made available online mostly by non-state actors.

3.6. The competences disconnect

The competences are rarely mentioned specifically in the project descriptions. The surveys introduce a bias, because they suggest competences by offering a list that breaks them down and organises them for the experts. When looking at descriptors of projects on their website, there are not many references to existing competence sets. This is seen in the TRANSLIT project, where a content analysis of websites was conducted:

> The medium "movie and film" and the format "digital" have twice the references of "critical thinking" and "communication". This could be seen as an indicator of a conceptualisation of good practices that is more media-centred than competences-centred. "Newspaper" and "ICT" rank fifth and sixth, followed by "security" or "safety" (Costa et al. 2017).

The only competence that is consistently mentioned in all reports is "safety". This bias in favour of safety can be construed in different ways, but it appears to be a way of getting funding by referring to a major recognised EU programme, the Safer Internet programme. It may reflect a strategy of "the tail wagging the dog" being adopted by project managers: they use one entry that is going to convince both decision makers and parents in order to get funding, but in fact they use that funding to advance additional purposes (critical thinking, learning by doing, creativity, etc.). This bias is more about protection than promotion or empowerment. It needs to be mitigated with other messages that are more positive about engagement and per-formance in current digital citizenship strategies.

This relation to competences shows a disconnect: good practices are not necessarily related to mandatory frameworks for public policy. They are bottom-up; they are not related to decision makers, but to professionals who are also activists. They do confirm that good practices are "sensible": they make sense of a specific environment or of an identified local/national need and set about addressing it. Some of them are also conceived of in a holistic manner and not in a granular manner, with descriptors.

The good practices that draw most attention tend to be media centred rather than competence centred: the focus on tools seems to point to a preference for "digital" over "citizenship" in DCE. But it also highlights the performance interest in good practices, which leads to an operational versus a holistic approach to competences: "learning by doing" is often the preferred pedagogy (in contrast with the school system). It also confirms that practitioners do not find it easy to implement teaching about values and they prefer to distil them into other strategies and activities which will still lead to changes in attitudes and behaviour.

3.7. The funding/evaluation catch-22

One major weakness noted in all the surveys is funding per se. It is difficult to find information about funding, and when it is found it is blurred: it is difficult to distin-guish "human resources" types of costs from those related to investments in hardware/software; specific budgets earmarked for DCE are not apparent and tend to be

combined with other programmes, which dilutes them. When provided, the range of funding can be quite wide, from a few thousand euros to several million. Such a range may imply that funding does not necessarily cover the full needs satisfactorily or in a manner that is sustainable over time.

The main providers of funding tend to be national, from public agencies. This presence of the public sector may seem odd for good practices that are perceived as bottom-up and not part of the official agenda, but it does confirm the use of good practices in governance strategies. European agencies are also present; this may explain the presence of "safety" as a visible competence, as large-scale programmes such as the Safer Internet programme may have provided incentives to good practices in that priority strategic sector. EU agencies may also play a part in the multi-national dimension of some good practices, as they tend to have rules which favour projects proposed by a consortium of EU countries. This in turn could be seen as an opportunity for sharing practices and funding while maintaining a local or national focus and financial support.

The private sector seems to have a very limited presence in funding for DCE. Microsoft, Google, Facebook and Samsung are mentioned, namely IT companies and pure players which may have a vocation and a vested interest in promoting digital uses. In the TRANSLIT project research, "small companies appear more connected with local initiatives such as newspapers and publishing houses" (Costa et al. 2017).

As for evaluation, this is the other weak point that appears in the surveys. Project managers are often the ones doing the reporting and the assessment, which makes them both judge and defendant. And yet, academia seems to play an important role, which may be due to the specificity of DCE as part of education, and therefore of the preparation of future teachers and trainers. However, the presence of academia does not seem to foster proper assessment, even though their remit includes a strong tradition of assessment in Europe. This weakness may partly be due to a lack of discrete competences on which to report, with little transformative evaluation ("before and after" type of assessment). The fuzzy perimeter of DCE definitions and frameworks, in addition to the overlapping literacies involved, may increase the difficulty in evaluating specific dimensions and outcomes.

Furthermore, it is possible that the difficulties in evaluating DCE outcomes are linked to unclear aims which make the evaluation of good practices more difficult, as they often do not fit within traditional assessments. Good practices – especially in MIL and DCE – are often ambiguous in relation to formal assessment, as they tend to be absent from school systems (summative or formative evaluations). Rather, they tend to employ transformative or iterative/agile methods (portfolios, passports, etc.) which cannot be reduced to a grade or a score. This historical and strategic positioning needs to be better taken into account in public policies, but for the moment it results in a real difficulty in identifying the problems and designing adequate training programmes that can be transferable and sustainable, while posing the risk of favouring operational rather than reflexive types of evaluation for DCE.

In addition, most of the surveys do not show a link between funding and assessment (the question was not asked, so the projects did not provide the information). And yet the renewal of a project often depends on evaluation and proof of performance

and efficiency (especially when dealing with public funding). This disconnect leads to a catch-22 situation, as limited evaluation may result in poor or reduced funding, which in turn may lead to lack of investment in assessment. Such a situation is detrimental to DCE in terms of policy focus and development, and may compromise the independence of DCE (by favouring funding by other actors such as foundations and the private sector).

3.8. The governance gap

Overall, the results provide a specific form of DCE governance across Europe which is not very different from MIL governance. It is characterised mostly by loose co-ordination on the part of public sector actors, engaged implementation by other actors (mostly civic sector actors), and a weak relationship with the supranational European authorities (European Commission and Council of Europe).

The competences disconnect and the funding/evaluation catch-22 situation all point to a model of governance which is relatively poor in co-ordination and support, but which does not preclude sense-making practices developing at the community level. National projects seem to be prevalent without full reference to supranational entities and frameworks (except for the Safer Internet programme). At best, this points to a delegating attitude to DCE (the state as supporter) and at worst to a disengaging attitude to DCE (the state as laggard). In turn, this indicates a potential governance gap, as no special entity is endorsing and taking full responsibility and accountability for DCE, while the *trompe l'oeil* effect gives the feeling that it is a thriving area (as many resources and tools are produced by non-state actors).

Various levels of externalisation of resources, materials and funding appear in the DCE governance process. They point to a lack of internal co-ordination of public policy, which is also related to poor co-ordination across European countries (be it via the European Union or the Council of Europe). The public mechanisms of co-regulation do not seem to be fully in place to co-ordinate the various stakeholders. This can lead to a loss of synergies when considering DCE, as the sovereignty of the member states prevails but tends to produce a certain amount of inertia (which can explain a number of supranational initiatives coming from other regions of the world, to compensate for this inertia).

In turn, these variations delineate varying public policy frameworks and distinguish sub-regions affiliated to certain traditions and innovations. The distribution in Europe needs to be further looked into, as some new democracies in eastern Europe tend to place more emphasis on the "citizenship" construction, and older democracies tend to focus more on "digital" tooling and skilling. Different types of DCE according to regions and political models could be suggested from the results, varying according to more or less neo-liberal policies in relation to an increasing mediatisation process. This analysis could serve as a diagnostic tool to evaluate DCE policies in each European country, while also suggesting co-ordinated supranational and cross-border synergies.

3.9. Conclusions

Overall, DCE good practices are sense-making practices that aim at long-term experiential strategies; they respond to an identified need and contribute to digital citizenship in that they are participatory in nature and inclusive in objectives. They do not yet show a real fusion of the digital and the political, with online and offline citizenship alignments still in construction, which was to be expected in this emerging field.

The issues of definition, perimeter, epistemology, values and core notions are important in terms of viable policy documents, co-ordinated governance mechanisms, usable competences frameworks and attendant solutions for evaluation and transfer. Good practices in DCE governance are empowering, as they allow for flexible incorporation of new digital media and new citizenship issues as they arise (radicalisation, information trust, etc.). But good practices cannot substitute for a constant upgrading of schools and teacher training to ensure access, equity and social justice for all.

Chapter 4

Emerging trends

4.1. Added values: empathy, life skills and social literacies

With the advent of digital media technologies, the world has become an environment where many diverse cultures intermingle and collide. As outlined by the Council of Europe's "White paper on intercultural dialogue", only dialogue and debate can ensure that such a meeting moves in the direction of mutual respect, equal opportunities and ethical decision making (Council of Europe 2008). The simultaneous presence of real and virtual worlds offers new opportunities but also new challenges for such dialogue.

Social literacy is a priority for multicultural societies, where citizens need not only the skills to enter the labour market, but also need to be co-builders of a democratic culture in which values such as ethical behaviour, empathy and respect can be elements of social change. Goleman's work on emotional intelligence points to the relevance of less measurable competences such as "knowing and managing one's own emotions", "recognising and understanding others' emotions" and "managing relationships and others' emotions". Empathy with other people means being able to recognise and understand otherness. However, that on its own is not enough: Goleman reminds us that today, social actors need to be able to cope with one's own (and others') emotions in order to handle relationships properly and take action consequentially (Goleman 1998). This has become an increasingly complex task, especially today, where people's interactions are often mediated online through various forms of digital technologies.

Therefore, within the various competence frameworks for digital citizenship, knowing how to use ICTs in an effective, efficient and safe way (components more linked to "hard skills", which are more measurable) is no longer sufficient to be an effective citizen in a technology-rich society. Competence for effective digital citizenship also requires socio-relational and emotional competences (linked more to "soft skills", which are more difficult to measure and quantify) that are connected to this form of participation in the digital world.

In line with this trend, in its Model of Competences for Democratic Culture the Council of Europe lists "empathy" among the skills; "respect", "responsibility" and "tolerance of ambiguity" among the attitudes; and "cultural diversity", "democracy" and "equality" among the values that need to be developed in order to live together as equals in culturally diverse democratic societies (Council of Europe 2016).

Similarly, global citizenship education as developed by UNESCO includes "socio-emotional" outcomes under the heading of key learning outcomes, including concepts such as "sense of belonging to a common humanity", "sharing values and responsibilities" and (again) "attitudes of empathy, solidarity and respect for differences and diversity" (UNESCO 2015).

In the same way, skills such as "the ability to interact respectfully" and "empathy", and attitudes such as "openness towards people from other cultures" and "respect for cultural otherness" are included under the objective of fostering global competence within the OECD's Education 2030 framework (OECD 2016).

The 2017 version of the European Commission's DIGCOMP includes the area of "communication and collaboration", within which one can find competences such as "interacting" and "collaborating" through digital technologies, and "netiquette" as the awareness of behavioural norms in online interactions and the ability to be aware of cultural and generational diversity in digital environments (Carretero et al. 2017).

Finally, the World Economic Forum has defined eight digital skills which children should learn in order to acquire "digital intelligence", the set of social, emotional and cognitive abilities that enable individuals to face challenges and adapt to the demands of digital life.

These include social literacy skills such as "digital identity" – the ability to create and manage one's online identity and reputation – and "digital emotional intelligence", the ability to be empathetic and build good relationships with others online.

In addition to the above international and intergovernmental frameworks, a range of national initiatives have similarly placed emphasis on social literacy for digital citizenship.

For example, in 2016 the Netsafe initiative in New Zealand developed a model for digital citizenship where the "attitudes underpinned by values that support personal integrity and positive connection with others" represent one of the key elements for developing digital fluency (Netsafe 2016). In Australia, the Australian Government – Office of the eSafety Commissioner's digital citizenship programme underlines the importance of respecting the rights of others, participating online with confidence, taking action to protect privacy, and interacting safely online (Australian Government n.d.).

The programme offered by Canada's MediaSmarts includes seven core transversal competences for schools, two of which refer to social competence: "ethics and empathy", described as socio-emotional skills and the ability to make ethical online decisions; and "community engagement", particularly in terms of exercising rights as citizens and consumers and social norms to engage positively in online spaces (MediaSmarts 2015).

The ethical dimension is also central to the model developed by Mark Ribble for the inaugural Digital Citizenship Summit in 2015. Organised under three main principles – safe, savvy and ethical – the main "ethical" principle encompasses other principles such as "rights and responsibilities" and "etiquette" as one of the three pillars that underpin this vision of digital citizenship (see Appendix 2). Similarly, in the United States, both the 2016 *ISTE Standard for Students* and Common Sense Education's Scope and Sequence curriculum incorporate values such as "respect", with its

sub-element "etiquette", as one of its competence areas in "relationships and communication" (ISTE 2016; Common Sense Education 2015).

The above examples highlight the emphasis given to the values, attitudes, skills, knowledge and understanding that are related to the personal development of learners. Other areas, such as the ability to protect one's own privacy or the ability to retrieve reliable information, also refer to social literacy skills, and require social empathy and ethical behaviour in considering the relationship to others not only in terms of tolerance but also in terms of collaboration and inclusion.

The emphasis given within policy frameworks to concepts such as respect, cultural awareness, responsibility, values reinforcement, empathy, honesty, integrity and freedom of speech is a clear indication of the importance which institutions now attach to the need to educate individuals to be socially literate and take responsibility for their own personal and professional development.

This is particularly relevant in the case of digital citizenship, where citizens live in a space in which the digital world and the real world coexist: virtual environments are not only created by technologies, but also by the relationship exchanges which take place within them, and in fact shape them in a cycle of mutual influence. Active participation plays a key role in this dynamic: without this awareness, citizenship would amount to nothing more than individuals who are efficient in terms of technical skills but not able to apply their thinking and their values to their practices.

4.2. Trends in the practices analysed in the "Digital citizenship education multi-stakeholder consultation report"

Taking into account the findings of the multi-stakeholder consultation report organised in the context of the current project, some notable trends emerge which can inform good practice in the field of digital citizenship. The review collated and analysed 62 practices from over 40 projects implemented across Europe, the US and Canada.

4.2.1. Funding sources

Over 56% of the projects surveyed were funded by public sources; 21% were co-funded by private and public funding. This demonstrates the degree of interest in digital citizenship shown by local or public institutions.

4.2.2. Stakeholders involved in the projects

With an equal percentage of over 82%, students and teachers head the list of stakeholders involved in DCE projects. The formal education system is the principal setting for such practices. Of note is the fact that teachers and students are addressed in equal numbers as target audiences for such initiatives. Other large target stakeholder groups include civil sector groups (58%) and parents (55%), both of which have an important pedagogical role.

4.2.3. Key elements of the projects

Stakeholders were asked to identify which digital domains the relevant digital citizenship project addressed. The most popular domains included:

▶ media and information literacy (72%);
▶ rights and responsibility (66%);
▶ privacy and security (60%);
▶ ethics and empathy (55%).

"Media and information literacy" is the domain most often addressed. Given that the media environment touches on nearly every societal challenge – violent online radicalisation, fake news, post-truth issues, online populism – it is perhaps unsurprising that policy makers and educationalists identify MIL as the most important issue and therefore plan their activity to emphasise this topic.

"Rights and responsibility" and "privacy and security" are respectively the next most common domains addressed. This can be read as a sign of the importance which projects attach to issues of e-safety, data protection and online presence. Practices to support digital citizenship have therefore prioritised how to behave properly online and how to protect one's own and others' information and data as key requirements.

One further emerging trend, in line with findings from the literature, is the growing importance of ethical and empathic online behaviour. Digital citizens need to know not only how to use the internet and media competently, to be aware of their rights and responsibilities and how to protect themselves online; they also need to relate socially and empathetically with others. For this reason, concepts such as ethical behaviour or online empathy are increasingly evident and appear more frequently in digital citizenship programmes and practices.

4.2.4. Other notable competences developed by digital citizenship education practices

A number of additional competences over and above those included within the CDC model were also highlighted by respondents to the DCE multi-stakeholder consultation. These include competences relating to displaying solidarity with others, defending human rights, conflict-resolution skills and critical awareness of propaganda and stereotypes.

Values	▶ Solidarity in terms of developing a society where people care about each other
Attitudes	▶ Civil courage in terms of taking risks to defend human rights ▶ Taking part in disputes without harming others
Skills	▶ Cyberbullying resolution skills ▶ Collaborative creativity and productive skills ▶ Media production skills ▶ "Forward-looking" skills
Knowledge and critical understanding	▶ Build and develop a healthy identity ▶ Critical understanding of propaganda and stereotypes in the media

Such attributes, combined with examples analysed in the report (WebWeWant, ACES, KidZania, Daisy Chain and Digizen[2]), point to the emergence of a body of practice that focuses on immersive, situated and meaningful experiences that foster the development of DCC for all ages.

4.3. Trends in new teaching and learning theories and practices that may affect digital citizenship education

It is also the case that the field of education is itself changing rapidly through the adoption of digital technologies and strategies. This in turn offers new opportunities for DCE, as its competences are often project-based and related to innovative teaching methods. Among the most notable trends are: the flipped classroom MOOCs and game-based learning.

► The flipped classroom approach is becoming familiar in many countries as a way to learn differently and collaboratively. It enables teachers to redesign their courses and to organise their educational content, as well as the time and space where learning takes place, differently. It is conducive to exchanges in the classroom with different modes of delivering content (video, games, etc.).

► MOOCs are another way of connecting teachers and learners, as they address learners on a mass scale and are often participatory in nature (see ecolearning. eu), as in the case of social MOOCs (sMOOCs). The topics are extremely varied, but tend to involve the use of digital tools and to develop innovative teaching practices (tweetMOOC, for example). There are no MOOCs on digital citizenship yet, but such competences are often mentioned in the various existing MOOCs on MIL (Athabasca University's Online Media and Information Literacy for Youth; Université Sorbonne Nouvelle's "DIY MIL" MOOC, etc.).

► Finally, game-based learning offers numerous opportunities for experiencing citizenship in a playful and immersive manner. Game-based learning can take place in formal and informal settings. Using resources like video games which elicit collaboration, this is an approach that enables the discovery and sharing of competences. Game-based learning tends to improve motivation and to prime young people to learn new ideas. Some examples use simulation strategies to elicit creative problem solving, for example SimCity (where players can deal with real life issues of citizenship and play with variables such as energy, the environment, etc.). Game-based learning is consistent with the trend of gamification that also can be found in MOOCs, in other words the introduction of game-design elements into other contexts and activities (serious games) in order to enhance attention and motivation.

The adoption of approaches such as the flipped classroom, MOOCs and gamification therefore have much to offer DCE, and lend themselves to supporting the life skills and social literacies that are central to DCE.

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2. Web We Want, www.webwewant.eu/; ACES (Academy of Central European Schools), www.aces. or.at/projectcontest/; KidZania, www.kidzania.com/what-is-kidzania.html; Daisy Chain, www. ilovedaisychain.com; Digizen, www.digizen.org.

Chapter 5
Challenges

5.1. Organising and piloting descriptors for digital citizenship education

The underlying objective of the current project is the development of descriptors for DCE that operationalise the CDC model as developed by the Council of Europe. The so-called "competence model" was developed to support education for democratic citizenship, human rights education and intercultural education. Learning outcomes are currently being tested in schools across Europe, the aim of which is to establish through scientific evidence whether or not they are attainable, hence how the 20 competences included in the CDC framework may be teachable, learnable and assessable. Bearing in mind that the model "applies not only to democratic and intercultural situations in the physical world but also to such situations in the digital world" (Council of Europe 2016: 23), this is particularly relevant to DCE. It is therefore crucial to develop an equivalent set of descriptors aimed at digital environments and similarly to test them in diverse European school settings.

5.2. Consider online and offline as a whole

A digital citizenship framework operates within the wider and more complex context brought about by the interpenetration of "real" and "virtual" spaces of citizenship. The need to regard these two dimensions as two sides of the same coin, in a context of mutual influence, is fundamental: what happens in the digital environment has an impact on what happens in the real world and vice versa. In his book *Democracy and Education,* written 100 years ago, Dewey reminds us how much the medium can transcend the space of the relationship: "A book or a letter may institute a more intimate association between human beings separated thousands of miles from each other than exists between dwellers under the same roof" (Dewey 1916). If a book or a letter has this transformative power, the power and influence of computers and relationships mediated by social media are only magnified.

Given the importance and complexity of the topic, it is fundamental not only to have future citizens able to participate in a democratic culture, but citizens able to do so in an environment in which ICTs add new challenges and opportunities. For this reason, particular attention needs to be given to the testing of descriptors for CDC within the context of competences for digital citizenship.

5.3. Digital citizenship education should start at an early age

Another related challenge is the need to develop descriptors for all educational levels, including very young children attending pre-school and primary school, given the extent to which media use among young children is growing, as new digital devices continue to emerge. Data collected in 18 European countries from 206 families with children aged 0 to 8 showed that while television remains the most popular medium, the tablet is the now most popular device among young children (Chaudron 2016). Smartphone use was found to be universal among all families. Thus, children – even those from under-privileged families – are living in very rich digital environments. Over half of children aged 3-4 and one third of children under 5 in the United Kingdom use tablets (Marsh 2014). Also, most children in the UK are using a tablet or a laptop by the age of 2 (Sefton-Green et al. 2016: 8). A study in four European countries showed that 60% of children under 5 use digital technologies, and 23% of them simultaneously use television, computers and internet (Palaiologou 2016). The multiscreen television is a fact. The number and quality of the games they play continue to increase. Children's digital literacy practices are co-constructed across generations. Children have more independence in media use. They prefer tools that depend less on written text and more on still and moving images. They also love to produce and share using multimedia environments, because the nature of their activities is undoubtedly more social than it was before (Marsh 2014).

However, data on young children's digital use and practices

> does not tell us what such engagement means in terms of the child's learning especially their developing literacy (…) their understanding of the world, their understanding of social relationships and indeed what implications such use might have for their education as a whole (Sefton-Green et al. 2016: 9).

Furthermore, young children's online practices have been largely ignored over the past decade by policy makers in most countries (Holloway, Green and Livingstone 2013), and much of the research has focused on children and young people from the age of 9 and upwards. Only 12% of approximately 1 200 research projects identified included children under the age of 7, while only 20% included perspectives of teachers and 13% of parents. Research has also focused on internet use by children and young people rather than on learning with the media, about the media, or through the media (O'Neill and Staksrud 2014). It is therefore crucial to start empowering digital citizens from an early age in formal, non-formal and informal settings.

5.4. Getting access to the huge number of experiences across Europe

Another challenge to be addressed in the development of the current project is gaining access to the vast number of initiatives, practices and policies currently ongoing in the 47 member states of the Council of Europe.

During 2016, a survey was undertaken of practices in digital citizenship in 32 member states of the Council of Europe, plus the United States and Canada. The purpose of this survey was to identify national contact points who, by virtue of the fact of having

a privileged viewpoint, could highlight the most significant and innovative practices and policies underway in their countries. Thanks to the contribution of these stakeholders, more than 60 responses were received. This analysis enabled the categorisation of 10 macro categories: privacy and security; e-presence and communications; media and information literacy; learning and creativity; access and inclusion; rights and responsibilities; health and well-being; ethics and empathy; consumer awareness; and active participation. These represent themes for possible development and inclusion within the DCE project.

However, the challenge remains to gather – "from the bottom up" – other experiences and policies and to give voice to the diversity of practice across all Council of Europe member states.

The project website, to be launched in the coming year, will therefore be used to raise awareness of DCE but also to facilitate the collection of other practices and experiences in an effort to highlight the specificity and diversity of DCE.

5.5. Various forms of participation

In his book *Im Schwarm: Ansichten des Digitalen* (In the swarm: views of the digital), the South Korean philosopher Byung-Chul Han points out that one of the biggest challenges which digital citizens must face is participation. Han states that with the advent of social media, the internet has made it more difficult rather than less difficult for individuals to gather together and to bring about collective change in ways that may affect their communities.

Despite the fact that platforms such as Change.org or other social movements based on online activism appear to effect change through online collective action (at the moment, there are almost 22 000 Change.org campaigns in 196 countries around the world),[3] according to Han the communications revolution has led above all to an erosion of the public space. A study published by the journal *Sociological Science* analysed the Save Darfur campaign, and in particular its Facebook page; the study concluded that the presence on Facebook "conjured an illusion of activism rather than facilitating the real thing" (Lewis et al. 2014).

Phenomena such as hacktivism add further complexity to this scenario. What it is certainly clear is that future forms of social and political participation will be profoundly changed, if not already, by the World Wide Web: this is definitely something that the education systems and the institutions around Europe need to take into account.

5.6. Hard literacies are striking back: finding a comprehensive approach towards hard sciences and life (soft) sciences

Despite the fact that among the sources analysed for this review, social literacies and soft skills are taken into account and given equal importance compared with

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3. www.change.org/impact, accessed 26 June 2017.

"hard literacies", in educational policy more generally priority is given to the attainment of conventional literacies and instrumental skills geared to the needs of post-industrial technocratic societies. Yet, to be effective, policy must strike a balance between the attainment of skills oriented towards the sciences and those which address the challenges for digital citizenship, namely, privacy, web safety, development of e-identity, media and information literacy and e-learning and creativity.

Figure 3: Digital domains covered by projects
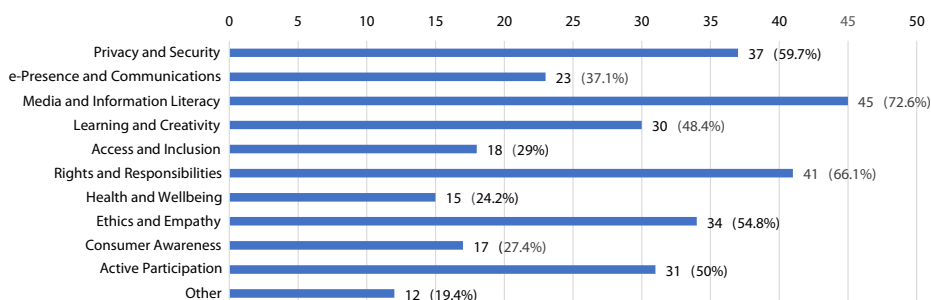
Source: Digital citizenship survey

For example, Microsoft learning resources on the theme of digital literacy[4] aim to "teach and assess the basic concepts and skills needed to use a computer" because this would help users in their "everyday life to develop new social and economic opportunities". The curriculum includes learning materials on how to use a computer, the internet, cloud services, computer security, privacy management and coding, with an online test to certify the level of digital literacy.

Digital safety, privacy, and coding are the most common topics, but speaking about competences for digital citizenship requires the development of attitudes, skills, knowledge and values that go beyond mere access to the virtual environments or knowing how to use the digital tools effectively. Being a digital citizen means developing competences in the field of privacy and security but also of communication, health and well-being, ethics and empathy.

According to the World Economic Forum,[5] skills such as "co-ordinating with others" and "emotional intelligence" feature among the 10 most useful skills for entering the 2020s labour market. This indicates the greatly increased importance given to capacities such as knowing how to communicate, knowing how to build significant relationships or knowing how to recognise and to cope with emotions.

In her book *Not for profit: why democracy needs the humanities*, Martha Nussbaum reminds us that in order to educate citizens to participate in democratic societies,

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4. www.microsoft.com/en-gb/digitalliteracy/default.aspx.

5. www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/

it is not enough to educate individuals for the "strong" disciplines that prepare them for the labour market. Nussbaum argues in favour of educational systems that give the right importance to subjects like literature, history, arts and philosophy, and to disciplines that contribute towards inculcating values such as respect, listening, equity and empathy in order to combat egoism, greed and the abuse of power.

Therefore, the key challenge is to facilitate a dialogue between "hard" and "soft" literacies which strives for a balance of technical and instrumental skills and the appropriate ethical use of communication, as tools of personal, professional and political empowerment; tools which support personal civic engagement with the democratic societies in which the subjects live and experience citizenship.

Another issue – pointed out by the European Union Agency for Fundamental Rights (FRA) – is the need to include human rights education in the debate. In its document produced for the Fundamental Rights Forum in 2016, the FRA noted that as we live in a "digital age", "it is important to recognise that fundamental rights apply equally offline and online" (FRA 2016). Only if institutions include human rights education, democratic culture education and social inclusion transversally in their education systems (especially in IT curricula) will individuals acquire more awareness of the weight of their actions and fulfil their role as digital citizens.

Chapter 6

Conclusions

T he importance of citizenship in the digital era has received significant atten-
tion both in academic literature and in numerous programmes and practices,
across Council of Europe member states, designed to enhance citizens' ability
to participate more effectively in a convergent, technologically-mediated society.
Recent events related to the radicalisation of young people on social media, the
rise of fake news and hate speech as well as the crisis of "post-truth" politics have
reinforced the need to take decisive steps towards the development of DCE.

This review of the literature has shown that while there is no single definition of
digital citizenship, there is an emerging consensus around the notion of digital
citizenship as a set of transversal characteristics that incorporate the values, skills,
attitudes, knowledge and critical understanding which citizens require in the digital
era. To be effective, digital citizenship needs to be underpinned by further research
and education in formal, non-formal and informal educational settings. It also requires
regular monitoring and assessment.

The challenges to DCE implementation identified in this review need to be taken
into account in order to develop a comprehensive and effective strategy for DCE.
These include: ensuring effective alignment with existing frameworks, and in par-
ticular with the CDC set out by the Council of Europe; and developing a comprehensive
approach, inclusive of all ages and cultural contexts, which addresses the need to
balance different literacies and harnesses the diversity of modes of participation
engendered by digital technologies.

Effective governance of DCE is also needed in order to fully engage all stakeholders
and to provide effective long-term experiential strategies that contribute to a par-
ticipatory and inclusive digital citizenship. Continuous review of emergent practice
is needed to identify the best and most effective practices. Good practices in DCE
governance should also allow for flexible inclusion of new digital media and new
citizenship issues as they arise (radicalisation, trust in information, etc.).

Recommendations

Building on the conclusions of this study, the results of this analysis point to several recommendations.

▶ Adopt the term "sensible" or "sense-making" practices and continue this research, with the aim of creating a DCE observatory (and use the proposed template to survey good practices and facilitate cross-country analysis).

▶ Be more specific in DCE definitions about the way in which digitisation and mediatisation impact citizenship. Plug DCE into existing literacies rather than presenting it as a separate or special form of education.

▶ Sensitise decision makers to the strengths and weaknesses of DCE governance and focus on the development of funding and evaluation.

▶ Train professionals in the use of competences frameworks and develop their capacity to evaluate, express their experiences and transfer their results.

Two complementary directions for further action are proposed by way of conclusion.

Implementation strategies

▶ To continue this reflection on and research into DCE, it is necessary to develop descriptors for the competences identified as essential (the VASK butterfly). However, such descriptors should be indicative rather than prescriptive, because the perception of competences among practitioners tends to be holistic, not analytic.

▶ Another tool that could be useful to develop is the visual model suggested in this research (the temple with its pillars). Together with the VASK butterfly, it can help towards constructing a narrative around DCE and is important for better propagation and adoption of the scheme: the competences do not appear as an abstract set of key words, but as part of a whole story, the story of democratic engagement online.

▶ Competences for digital citizenship can also be articulated with the CDC. They have converging goals and are complementary to each other. The added value of DCC lies in their stress on the participatory dynamics of digital tools and platforms, which adds to the focus of CDC on togetherness in the real world.

▶ Defining competences and their descriptors can lead to the development of digital and non-digital resources for teachers and educators at large. Several options are viable, for example:

– creating a MOOC on digital citizenship as a means of training the trainers. It could be based on the good practices study and provide large-scale education opportunities across Europe;

– developing game-based learning on digital citizenship to improve learners' motivation and engagement. It could be built around the "temple with its pillars" metaphor to foster playful acquisition of the competences; and

– having young people develop an app on the topic to share with other young people.

Awareness raising

▶ Decision makers and policy framers need to be sensitised to the fact that the lack of DCE poses risks of youth exclusion if such basic literacy is not provided in order to empower them as citizens and creative and critical actors. Awareness campaigns should be developed across Europe with simple messages, using the framework in a coherent communication plan which emphasises that DCE is a priority and a strategic area for the Council of Europe.

▶ Disseminating research results and using evidence-based recommendations is key to consensus building on such issues. An international conference should be organised to explore the proposals of this report as well as the good practices survey.

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Appendix 1

Comparative analysis of multinational frameworks for digital citizenship education

Reference Framework of Competences for Democratic Culture (CDC)
(Council of Europe, 2016)

Values
- Valuing human dignity and human rights
- Valuing cultural diversity
- Valuing democracy, justice, fairness, equality and the rule of law

Attitudes
- Openness to cultural otherness and to other beliefs, world views and practices
- Respect
- Civic-mindedness
- Responsibility
- Self-efficacy
- Tolerance of ambiguity

Competence

- Autonomous learning skills
- Analytical and critical thinking skills
- Skills of listening and observing
- Empathy
- Flexibility and adaptability
- Linguistic, communicative and plurilingual skills
- Co-operation skills
- Conflict-resolution skills

Skills

- Knowledge and critical understanding of the self
- Knowledge and critical understanding of language and communication
- Knowledge and critical understanding of the world: politics, law, human rights, culture, cultures, religions, history, media, economies, environment, sustainability

Knowledge and critical understanding

Council of Europe countries
(47 members + 3 countries signatory to the European Cultural Convention: Belarus, Holy See and Kazakhstan)

Values

▶ Valuing human dignity and human rights

▶ Valuing cultural diversity

▶ Valuing democracy, justice, fairness, equality and the rule of law

Attitudes

- ▶ Openness to cultural otherness and to other beliefs, world views and practices
- ▶ Respect
- ▶ Civic-mindedness
- ▶ Responsibility
- ▶ Self-efficacy
- ▶ Tolerance of ambiguity

Skills

- ▶ Autonomous learning skills
- ▶ Analytical and critical thinking skills
- ▶ Skills of listening and observing
- ▶ Empathy
- ▶ Flexibility and adaptability
- ▶ Linguistic, communicative and plurilingual skills
- ▶ Co-operation skills
- ▶ Conflict-resolution skills

Knowledge and critical understanding

- ▶ Knowledge and critical understanding of the self
- ▶ Knowledge and critical understanding of language and communication
- ▶ Knowledge and critical understanding of the world: politics, law, human rights, culture, cultures, religions, history, media, economies, environment, sustainability

"Domains of Learning"
(UNESCO, 2015)

Global
Framework: children aged: 5-18

Cognitive

- ▶ Knowledge and understanding of local, national and global issues and the interconnectedness and interdependency of different countries and populations
- ▶ Skills for critical thinking and analysis

Socio-emotional

- ▶ A sense of belonging to a common humanity, sharing values and responsibilities based on human rights
- ▶ Attitudes of empathy, solidarity and respect for differences and diversity

Behavioural

▶ Acting effectively and responsibly at local, national and global levels for a more peaceful and sustainable world

▶ Motivation and willingness to take necessary actions

"Dimensions"
(OECD, 2016)

OECD (35 countries)
Framework: all academic levels (including early childhood)

Knowledge

▶ Disciplinary knowledge

▶ Interdisciplinary knowledge

▶ Practical knowledge

Skills

▶ Cognitive and meta-cognitive skills

▶ Social and emotional skills

▶ Physical and practical skills

Attitudes and Values

▶ (to be identified)

"DIGCOMP 2.1 – Competence Areas"
(Carretero et al. 2017)

European Union (28 countries)

Information and data literacy

▶ Browsing, searching and filtering data, information and digital content

▶ Evaluating data, information and digital content

▶ Managing data, information and digital content

Communication and collaboration

▶ Interacting through digital technologies

▶ Sharing through digital technologies

▶ Engaging in citizenship through digital technologies

▶ Collaborating through digital technologies

▶ Netiquette

▶ Managing digital identity

Digital content creation

▶ Developing digital content

▶ Integrating and re-elaborating digital content

▶ Copyright and licences

▶ Programming

Safety

▶ Protecting devices

▶ Protecting personal data and privacy

▶ Protecting health and well-being

▶ Protecting the environment

Problem solving

▶ Solving technical problems

▶ Identifying needs and technological responses

▶ Creatively using digital technologies

▶ Identifying digital competence gaps

Appendix 2

# Comparative analysis of national frameworks for digital citizenship education

"The flower model"
(Jääskeläinen and Repo, 2011)

Finland

* An identity as part of the surrounding world
** Ethical global citizenship is understood as being about respect for the different aspects of humanity and commitment to regarding every individual as equal regardless of origin and status.

Global Citizen's Ethics**

Global Citizen's Identity*
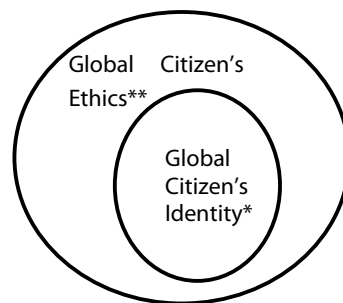
FLOWER'S CENTRE

PETAL 1 – Intercultural competence

▶ Almost synonymous with a cosmopolitan orientation, where the key is willingness and readiness to relate to cultural diversity and to empathise with otherness

PETAL 2 – Sustainable lifestyle

▶ Internationalisation characterised by aspiration for environmental responsibility and universal ethics

PETAL 3 – Global citizen's civic competence

▶ Responsible agency in a global civil society, where the key is "glocalisation", or the global intertwining with the local

PETAL 4 – Global responsibility and development partnership

▶ Political cosmopolitanism, where commitment to citizenship of a nation-state expands to loyalty towards humanity (even allowing the possibility of a world state)

PETAL 5 – Global citizen's economic competence

▶ Economic cosmopolitanism, where interest focuses on the global market economy

PETAL 6 – Learning challenges

▶ "Amidst the rapid change of the world, even competence cannot be static and it is therefore necessary to leave room for continuous reflection, new questions and definitions."

"Core set of knowledge, competences and culture"

(Décret 2015-372, 2015)

France

Languages for thinking and communicating

▶ Understanding and expressing oneself using spoken and written French
▶ Understanding and expressing oneself using a foreign language and, where appropriate, a regional one
▶ Understanding and expressing oneself using mathematical, scientific and computer languages
▶ Understanding and expressing oneself using languages of arts and body languages

Methods and tools for learning

▶ Organisation of personal work
▶ Co-operation and implementation of projects
▶ Media and approaches for researching and processing information
▶ Digital tools for exchange and communication

Training the person and the citizen

▶ Expression of sensitivity and opinions, respect for others
▶ Rules and the law
▶ Reflection and judgment
▶ Responsibility, sense of commitment and initiative

Natural systems and technological systems

▶ Scientific approaches
▶ Design, creation, production
▶ Individual and collective responsibilities

Representations of the world and human activity

▶ Space and time
▶ Organisations and representations of the world
▶ Invention, development, production

"Vision and values" (Childnet, 1995)

UK

Knowledge and skills

▶ All young people – Be able to navigate the online environment safely and responsibly
▶ All those who support children – Be equipped to support children

Policies

▶ Developers, providers and regulators of the internet and new technologies – Recognise and implement policies and programmes which prioritise the rights of children so that their interests are both promoted and protected

Values and ethos

▶ Be child-focused
▶ Take a balanced approach
▶ Work in partnership
▶ Be evidence-based/listen to key audiences
▶ Be independent
▶ Work for all children
▶ Be internationally oriented
▶ Defend freedom of speech
▶ Be committed to excellence and innovation
▶ Be quick to respond

"GONG strategy"
M. Horvart
(personal communication, 25 January 2017)

Croatia

Skills

▶ Critical thinking about media and digital content

▶ Recognising positive and negative effects of technology and media on people and societies

▶ Fact-checking

▶ Producing digital content for e-participation in decision making

Attitudes

▶ Understanding the right to information

▶ Understanding the harm of hate speech – the importance of communication and active and responsible citizenship in the community and online

Understanding and knowledge

▶ Media and digital environment with focus on Croatian context

▶ Production competences (for digital production and/or journalism)

Key processes
(Santos, 2011)

Portugal
Framework: Basic and secondary students

Decentering and empathy

▶ Identifies different points of view

▶ Recognises and considers other opinions and feelings

▶ Understands and can see things from the perspective of others

▶ Interacts with others, establishing constructive relationships

▶ Co-operates with others in the pursuit of common objectives

Critical and creative thinking

▶ Distinguishes facts from opinions and interpretations
▶ Researches and use relevant information, assessing its reliability and referring to the sources
▶ Shows the ability to create and innovate
▶ Critically analyses social situations and his/her own performance
▶ Determines what is right or wrong in different situations

Communication and argumentation

▶ Expresses opinions, ideas and facts
▶ Argues and debates his/her ideas and those of others
▶ Uses oral and written expression appropriately to structure thinking and to communicate
▶ Reads, interprets and produces messages on a variety of media
▶ Recognises and uses forms of interpersonal and institutional process according to the social and cultural contexts

Participation

▶ Recognises that he/she can influence decision-making processes, individually and collectively, through various forms of participation
▶ Participates in decisions that concern himself/herself or his/her life contexts
▶ Demonstrates interest for others and for the common good
▶ Uses rules of democratic debate and democratic decision-making tools
▶ Participates democratically, especially in representing others or being represented by them
▶ Participates in experiences of cultural exchange, work in school and community service and reflects on them, becoming aware of the lessons that these entail

"Key elements"
(Netsafe, 2016)
New Zealand

Skills and strategies

▶ to access technology to communicate, connect, collaborate and create

Attitudes

▶ underpinned by values that support personal integrity and positive connection with others

Understanding and knowledge

▶ of the digital environments and contexts, and how they integrate on/offline spaces

▶ "Digital citizenship combines the confident, fluent use and combination of the three key elements … and then, critically" leads to the ability to draw on this

"digital fluency"

▶ to participate in life-enhancing opportunities (social, economic, cultural, civil) and achieve their goals in ways that make an important difference

"Three core principles"
(Australian Government – Office of the eSafety Commissioner, n.d.)
Australia

Engage positively

▶ Exercising rights and responsibilities

▶ Respecting others' rights

▶ Bringing respect, integrity and ethical behaviour to online interactions

Know your online world

▶ New skills and knowledge (using technology and devices, participating with confidence, understanding digital languages, taking action to protect digital footprint)

Choose consciously

▶ Interacting safely online (e.g. thinking before sharing information)

▶ Using digital literacy and know-how to protect oneself and others

"Three main principles"
(MediaSmarts 2015)
Canada

Use

▶ Technical fluency

▶ Accessing abilities

▶ Use of knowledge resources

Understand

▶ Comprehend

▶ Contextualize digital media and how it shapes perceptions, beliefs and feelings

- ▶ Critically evaluate digital media and how it shapes perceptions, beliefs and feelings
- ▶ Communicate
- ▶ Collaborate
- ▶ Solve problems

Create

- ▶ Participate
- ▶ Innovate (depends on people's needs and circumstances – can range from basic awareness and training to more sophisticated and complex applications)

Seven core transversal competences

- ▶ Ethics and empathy (social-emotional skills; making ethical decisions online)
- ▶ Privacy and security (privacy, reputation and security online; digital footprint)
- ▶ Community engagement (rights as citizens and consumers; social norms in online spaces)
- ▶ Digital health (managing screen time and online identity issues; body image and sexuality; healthy/unhealthy online relationships)
- ▶ Consumer awareness (being "savvy" online)
- ▶ Finding and verifying (searching for, evaluating and authenticating information)
- ▶ Making and remixing (creating/using digital content legally and ethically)

"Nine elements model"

(Mark Ribble, Digital Citizenship Summit, 2015)

USA, English-speaking and Spanish-speaking countries

Safe

- ▶ Security
- ▶ Communication
- ▶ Commerce

Savvy

- ▶ Literacy
- ▶ Access
- ▶ Health

Ethical

- ▶ Rights and responsibilities
- ▶ Law
- ▶ Etiquette

"Three categories"
(Impero, 2016)
USA

Respect

- ▶ Etiquette
- ▶ Access
- ▶ Law

Education

- ▶ Literacy
- ▶ Communication
- ▶ Commerce

Protection

- ▶ Rights and responsibilities
- ▶ Security
- ▶ Health and wellness

"ISTE Standards for Students"

(ISTE, 2016)

USA – PART 1

Empowered learner

- ▶ Leverage technology to take an active role in choosing, achieving and demonstrating competency in their learning goals, informed by the learning sciences

Digital citizen

- ▶ Recognise the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world
- ▶ Act and model in ways that are safe, legal and ethical

Knowledge constructor

- ▶ Critically curate a variety of resources using digital tools to construct knowledge, produce creative artefacts, and make meaningful learning experiences for themselves and others

Innovative designer

- ▶ Use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions

Computational thinker

▶ Develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions

"ISTE Standards for Students"

(ISTE, 2016)

USA – PART 2

Creative communicator

▶ Communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals

Global collaborator

▶ Use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally

Scope and Sequence: Common Sense K-12 Digital Citizenship Curriculum

(Common Sense Education, 2015)

USA – Part 1

Privacy and security

▶ Strategies for managing online information and keeping it secure from online risks such as identity theft and phishing

▶ How to create strong passwords

▶ How to avoid scams and schemes

▶ How to analyse privacy policies

Digital footprint and reputation

▶ Protect own privacy and respect others' privacy

▶ Self-reflect before self-reveal online (consider how what is shared online can impact themselves and others)

Self-image and identity

▶ Explore own digital lives, focusing on online versus offline identity

▶ Benefits and risks of presenting themselves through different personas and the effects on their sense of self, their reputation and their relationships

Creative credit and copyright

▶ Reflect on responsibilities and rights as creators in the online spaces (consuming, creating, sharing)

▶ Learn about copyright and fair use (addressing plagiarism, piracy)

Relationships and communication

▶ Reflect on using intrapersonal and interpersonal skills to build and strengthen positive online communication and communities

▶ Explore digital citizenship and digital ethics (reflect on own online interactions)

Scope and Sequence: Common Sense K-12 Digital Citizenship Curriculum

(Common Sense Education, 2015)

USA – Part 2

Information literacy

▶ The ability to identify, find, evaluate and use information effectively

▶ How to evaluate the quality, credibility and validity of websites, and give proper credit

Cyberbullying and digital drama

▶ What to do in a cyberbullying situation

▶ Explore the roles people play and how individual actions, both negative and positive, can impact friends and broader communities

▶ Take the active role of upstander and build positive, supportive online communities

Internet safety

▶ Explore the potential to collaborate with others worldwide, while staying safe (employing strategies such as distinguishing between inappropriate contact and positive connections)

Appendix 3

Tool for analysis of sense-making practices in digital citizenship education

Sense-making rationale/vision	Problem solving	Lever for change	Show-casing IT practices	Community focus	Other (Awards, advocacy, awareness raising, etc.)
Project type	Resource production	Research	Practices/end-user engagement	Campaigns Policy development	Networking Funding
Actors/stakeholders	Civil society	Academia	Public sector Ministries, media regulatory authorities, etc.	Private sector Content providers Online platforms	Other Journalist associations, etc.
Public aimed/target	Children (below 13)	Teens (aged 13-18)	Professionals	Parents	Other General public The elderly
Funding	Public	Private	Mixed	Crowd-sourced	Other
Evaluation/performance	Summative	Formative	Transformative	Iterative/agile	External/internal
Resources	Training	Skilling	Informing (Leaflets, documentaries, etc.)	Networking (Websites, forums, etc.)	Other: Reporting (consultations, etc.)
Digital citizenship competences	Skills and strategies	Attitudes	Understanding and knowledge	Values and ethics	Engagement (Community, politics)
Setting	In schools only	Out of schools only (Libraries, museums, etc.)	Mixed	Digital terrain (Media companies, media platforms, etc.)	Other (Town halls, parliaments, etc.)
Duration	1 week to 1 year (one-shot)	2 to 5 years	5 to 10 years	10 years and over	Other
Governance level	Regional/local	National	EU	Mixed EU/national	International (outside of EU)
Digital specificities	Participatory pedagogy	Agile method	Outputs v. outcomes	Online presence	Bottom-up inputs

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Most young people in Europe today were born and have grown up in the digital era. Education authorities have the duty to ensure that these digital citizens are fully aware of the norms of appropriate behaviour when using constantly evolving technology and participating in digital life.

Despite worldwide efforts to address such issues, there is a clear need for education authorities to take the lead on digital citizenship education and integrate it into school curricula. In 2016, the Education Department of the Council of Europe began work to develop new policy orientations and strategies to help educators face these new challenges and to empower young people by helping them to acquire the competences they need to participate actively and responsibly in digital society.

This volume, the first in a Digital Citizenship Education series, reviews the existing academic and policy literature on digital citizenship education, highlighting definitions, actors and stakeholders, competence frameworks, practices, emerging trends and challenges. The inclusion of a wide selection of sources is intended to ensure sufficient coverage of what is an emergent topic that has yet to gain a strong foothold in either education or academic literature, but has received wider policy attention.

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