



# Democratic Digital Citizenship: The responsible use of ICTs and social networks in schools

Dr. Elizabeth Milovidov



# New Recommendation adopted on children's rights in the digital environment

STRASBOURG | 4 JULY 2018



online safety  
cyber-bullying  
online indoctrination

news/misinformation  
phone bans  
data protection





# Digital Citizenship Education Project



The aim of the Digital Citizenship Education (DCE) Project is the empowerment of children through education or the acquisition of competences for learning and active participation in digital society.

The DCE Project builds on the achievements of the Council of Europe's longstanding programme on [Education for](#)

[Democratic Citizenship and Human Rights Education \(EDC/HRE\)](#), and the initial results of [the project on Competences for Democratic Culture](#), as well as co-operation activities in other sectors (Internet Governance and Children's Rights).

It was approved by the Steering Committee for Educational Policy and Practice (CDPPE) at its 2015 plenary held in March 2016 as part of the 2016-2017 programme.



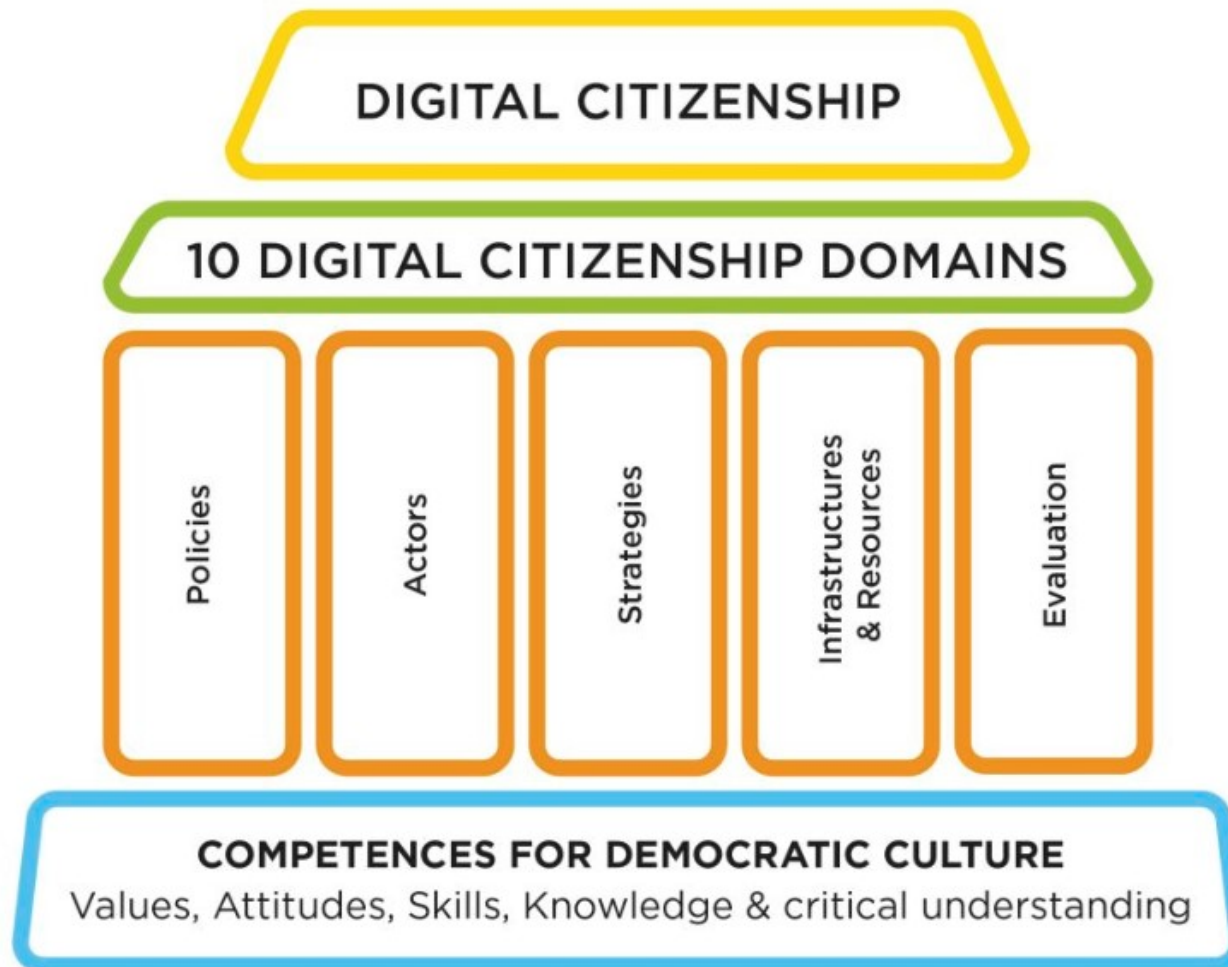
Digital Citizenship Education

### SHORTCUTS

[What is DCE?](#)

[Digital Citizenship Education](#)





# Being Online



### Access and Inclusion

This domain includes a range of competences necessary for overcoming different forms of the digital divide and opening digital spaces to minorities and different opinions.



### Learning and Creativity

This domain concerns the willingness to learn and the attitude towards learning through digital environments throughout life, and the capacity to develop and express different forms of creativity with different tools in different contexts.



### Media and Information Literacy

This domain concerns one's own abilities of interpreting, critically understanding and expressing one's own creativity through digital media.



# Wellbeing Online



## Ethics and Empathy

This domain concerns online ethical behaviour and interaction with others based on skills such as the ability to recognise and understand the feelings and perspectives of others. Empathy constitutes an essential requirement for positive online interaction and for realising the possibilities

that the digital world affords.



## Health and Wellbeing

This domain concerns one's awareness of the issues and the opportunities that can affect his/her wellness in a digitally rich world. Digital citizens inhabit both virtual and real spaces. For this reason, the basic skills of digital competence are not sufficient. Individuals also require a set of attitudes, skills, values and knowledge that render them more aware of issues of health and wellbeing.



## ePresence and Communications

This domain refers to the development of digital citizens' personal and interpersonal qualities that help them in building and keeping online images of themselves and online interactions that are positive, coherent and consistent.

## Rights online



### Active Participation

This domain relates to the competences that citizens need to be fully aware of how they interact within the digital environments they inhabit in order to make responsible decisions, whilst participating actively and positively in the democratic cultures in which they live.



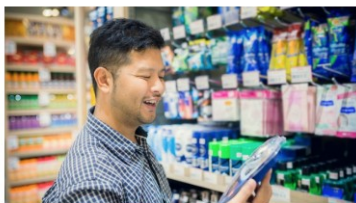
### Rights and Responsibilities

This domain concerns digital citizen's awareness and understanding of their rights and responsibilities in the online world. As citizens enjoy rights and responsibilities in the physical world, digital citizens in the online world also have certain rights and responsibilities.



### Privacy and Security

This domain covers two different concepts: Privacy concerns mainly the personal protection of one's own and others' online information, while Security is more related to one's own awareness of online actions and behaviour.



### Consumer Awareness

The World Wide Web, with all its dimensions like social media or other virtual social spaces are environments where often the fact of being digital citizens means also being users, being consumers.





## DIGITAL CITIZENSHIP... AND YOUR CHILD

What every parent  
needs to know and do



[www.coe.int/education](http://www.coe.int/education)

We are all taught at home, at school  
and through our daily activities how to  
become responsible citizens, but today  
it is vital that we, and our children, also  
become **digital citizens**.



## DIGITAL CITIZENSHIP EDUCATION (DCE)

10 DOMAINS

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### GLOSSARY

### ABOUT THE AUTHORS

## HOW TO USE THIS GUIDE?

This guide is divided into three sections:

- ▶ **Section 1:** Being online – Information related to how we engage and exist online, it comprises three digital domains: access and inclusion, learning and creativity and media and information literacy.
- ▶ **Section 2:** Well-being online – Information related to how we feel online, comprising another three digital domains: ethics and empathy, health and well-being, and e-presence and communications.
- ▶ **Section 3:** Rights online – Information related to being accountable online, comprising the final four digital domains: active participation, rights and responsibilities, privacy and security and consumer awareness.

In each section, domains are further divided into dimensions and fact sheets. The two are meant to be complementary, as the dimensions provide the theoretical and historical background to the issues, whereas the fact sheets provide scenarios and situations that can be used in classrooms or within families. Dimensions and fact sheets are cross-referenced to ensure that the information provided is done so in the most effective manner.

Dimensions provide the fundamentals to help you understand the “why” before you use the fact sheets to help you “do”. Dimensions explain the domains and provide other definitions to further help your understanding of the digital domain. Dimensions may cover one or more of the following key points:

- ▶ definition of the theme
- ▶ how it works
- ▶ personal development
- ▶ educational and citizenship value.

Fact sheets provide activities for school classes, families and other scenarios where children can participate outside of classrooms. They present information and resources and may cover one or more of the following key points:

- ▶ ethical considerations and risks
- ▶ ideas for classroom work
- ▶ good practice/living digital citizenship
- ▶ further information and resources.

A glossary is provided at the end of the guide with references to dimensions and fact sheets.



## SECTION 2 WELL-BEING ONLINE



### WHAT CHILDREN SAY

” I feel that people need the freedom to be able to share their knowledge and opinions without the fear of being harmed for doing so. Everyone should have the right to express themselves for who they truly are, and should not feel constricted by today’s discriminative society.

Katie, 15, England



### WHAT TEACHERS SAY

” The importance is how digital citizenship and competences are represented at each different age. During early childhood, children need to integrate competences such as civic mindedness, contesting the status quo and calling into question things they encounter, see or hear.

Teacher, Riga



### WHAT PARENTS SAY

” Parents, teachers, society – all of us involved in children’s education have to join forces and learn to work together. We’re all part of a triangle with our children right in the centre.

European Parents Association.

” I’m worried about the impact on human contact, the development of social skills, physical and emotional health and lack of interest in non-media pursuits such as sports, outdoor activities, hobbies, clubs, involvement in local community, school performance and work. I believe that if used correctly, media can be a useful tool, but it requires learning and management.

Parent, France

### CHECKLIST FACT SHEET 4: ETHICS AND EMPATHY



- ▶ What is the relationship between ethics and empathy?
- ▶ How can empathy play a role in peace-building and mediation?
- ▶ What role can ethics play in digital citizenship?

### CHECKLIST FACT SHEET 5: HEALTH AND WELL-BEING



- ▶ Can technology and health be mutually beneficial?
- ▶ Why is balance the optimal factor between technology and well-being?

### CHECKLIST FACT SHEET 6: E-PRESENCE AND COMMUNICATIONS



- ▶ How will the EU General Data Protection Regulation (GDPR) affect e-presence?
- ▶ What are the implications of the overlapping of communications on social media and the internet?
- ▶ What are some of the ways that children can create a positive e-presence?

## DIMENSION 6 E-PRESENCE AND COMMUNICATIONS

” Either write something worth reading, or read something worth writing

Benjamin Franklin





**A**s the internet has become increasingly present in our lives, our online identities have become ever more important. How we interact with each other can have positive or negative impacts on ourselves as well as on others. Being able to create and maintain a healthy e-presence and communicate in ways that allow us to engage responsibly and do not impede upon the rights of others is pivotal to digital citizenship.

Originally, e-presence was a marketing tool for personal branding and the combined process of drawing traffic and creating a lasting positive image on the Web. This marketing concept included the knowledge of search engine optimisation, e-reputation, social media uses and so forth. It has since come to extend to the personal and interpersonal qualities that guide digital identity and the social and cognitive competences to do so.

**e-Presence** is how you maintain your presence online and extends to your personal and interpersonal qualities that guide you in maintaining your digital reputation and digital identity. The extent and quality of your online presence can be found via a search online using your name or other personally identifiable information. Depending on the type of communications that you have engaged in, your e-presence can be negative or positive and, depending upon your social and cognitive skills for crafting your digital reputation, this can also boost or impede your e-presence.

**Communications** are the interactions, ideas, images, videos and pieces of information that you share and exchange with others through virtual social spaces. Obviously, communications can be offline as well as online, and online communications can spill over to offline and vice versa. The focus of this fact sheet will be online communications.

Like e-presence, online communications can be of a negative or positive nature but here we emphasise the ability to communicate and interact with others in a safe and responsible manner. The skills necessary to create positive online communications are also linked to one's social and cognitive skills in crafting the message. Given the nature of online communications and the fact that they can be viewed, shared or can go viral, online communications should be beneficial to society and online communities, where possible.

## E-PRESENCE AND COMMUNICATIONS CHANGE WITH TECHNOLOGY

As new technology, social media platforms and the internet continue to rapidly evolve, e-presence and communications also change and evolve. Face-to-face personal interaction may be reduced in some circumstances, but as many Web conferencing companies can attest, many people still prefer face-to-face interactions for certain aspects of business, just as many people prefer face-to-face interactions for personal communications.

As technology changes, other forms of communication can be seen, such as virtual reality or augmented reality. Virtual reality is when users interact in a digital environment in such a way that it simulates the user's presence in a real or imaginary situation, whereas augmented reality layers computer-generated enhancements over an existing reality to make it more meaningful and let users interact with it. Both can change the way we communicate. The immersive experience offered by VR and AR can be altered so that each person has a different perception of reality – this is a new dimension to communications that provides for a tailor-made personal and social experience.



## E-PRESENCE, DATA PROTECTION AND PRIVACY

All citizens should be aware of how to protect their online identities, protect their personal data and maintain a modicum of privacy if so enabled. By using critical judgment and performing simple research, digital citizens should be able to change the privacy settings on most platforms and apps in order to maintain positive online identities (see Fact sheet 9 for further information about protecting your online identity).

With the General Data Protection Regulation implemented across the European Union in 2018, individuals should have more control over their data and privacy and be able to control their e-presence in a manner they deem suitable.



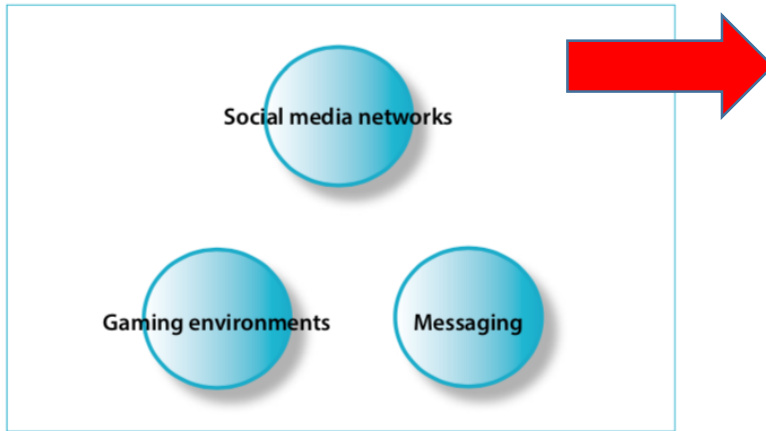
## HOW DOES IT WORK?

e-Presence can be established directly or indirectly. You can directly create an account, upload data, images and information. Your indirect presence is created by others who have tagged you in images or uploaded your information and data or data and information about you. Many online platforms inform you when you have been tagged on their platform, and you have the ability to confirm or deny the tag.

Communications technology offers a variety of methods and means of communications from the simple to the very complex, and digital media has amplified our communication possibilities (Figure 13). Communications have gone way beyond face-to-face and offline interactions and exist in a multitude of ways and forms online. Users are now able to communicate one on one, one to many or many to one. The methods of communications are varied and can include the following:

- ▶ chats (informal term for interactive communication taking place on a dedicated discussion channel)
- ▶ instant messaging (a type of online chat that provides real-time text messaging)
- ▶ SMS
- ▶ e-mails
- ▶ voice over IP (VoIP) conversations
- ▶ social networks
- ▶ podcasts
- ▶ virtual and augmented reality environments
- ▶ gaming environments.

Figure 13: e-Presence communication modes



One of the trends that has emerged is the ability of people to communicate across several of these methods and media simultaneously. For example, when playing a video game, you can also send chat messages, or you can use a social media network to play a game and message with others about your score.

With the many different methods of communications, users can adopt an approach which best affords benefits for them. Benefits include reduced distance between people, the ability to create contact with people external to their immediate community, the ability to share information and resources and more.

### Considerations for positive communications

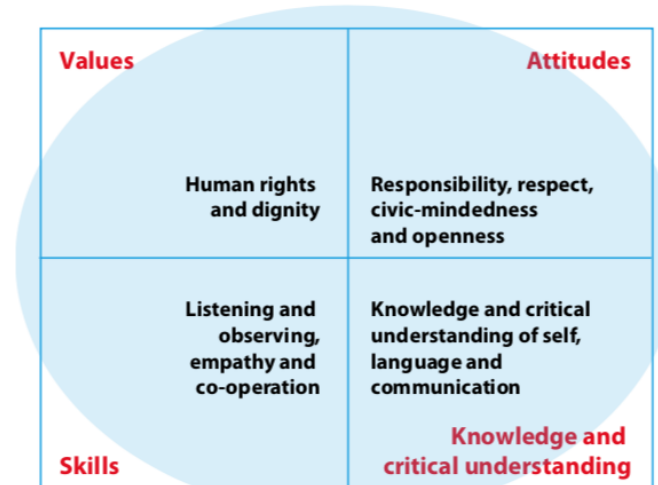
- ▶ Everything that you post, send or record online leaves a digital footprint (similar to footprints in the sand).
- ▶ Think before you post a message, regardless of the content. Something that you think is positive may be misconstrued.
- ▶ Keep all personally identifiable information private, including images that might leave clues as to who you are, your location or your gender.
- ▶ Respect the equipment that you use and remember that if you use the servers of your school or employer, your communications may not be private.
- ▶ Find out if there are options allowing you to customise the time during which your online contribution will remain visible. Chances are that you would be pretty embarrassed at 16 by pictures or opinions that you posted when you were 10.



### EDUCATIONAL AND CITIZENSHIP VALUE

- Communications and e-presence are valuable for digital citizens as they build and maintain their online reputations and online interactions in a positive manner.
- Understanding how to manage one's digital identity and digital footprint is essential for digital citizens.
- Many argue that online communications do not replace telephones and face-to-face communications, but rather enhance traditional communication.

Figure 14: e-Presence and communications – Core digital citizenship competences





## FACT SHEET 6 E-PRESENCE AND COMMUNICATIONS



### ETHICAL CONSIDERATIONS AND RISKS

— e-Presence and communications provide innovative ways for people to exchange and interact. However wonderful technological tools may be, there are still serious consequences and risks that need to be taken into account, such as:

- ▶ unauthorised access to your e-mail accounts;
- ▶ misunderstandings in your written messages or use of images, emoticons or emojis;
- ▶ e-mail communications are used extensively by criminals engaged in fraud, phishing schemes, scams and other types of online criminal activities;
- ▶ chat rooms should be used responsibly and the theme should be age-appropriate.

— With respect to unwanted aspects of online communications, classification of negative acts online can include cyberbullying, online harassment, trolling, cyberstalking or even phubbing (the act of snubbing someone while the other person is trying to engage in a conversation and you continue to look at your mobile phone).

— **To maintain a positive e-presence**, it may be advisable to do the following.

- ▶ Create several e-mail accounts for different purposes, such as signing up to social networks or for purchasing products online. The different accounts are not fraudulent but they can be used to maintain your privacy.
- ▶ Use appropriate "netiquette" and remember that you have an audience. Be considerate with your e-mails, both in the content and volume.
- ▶ Remember that, in general, if you would not say it in public, you should reconsider writing it in an e-mail or online.

— **To maintain positive communications**, it may be advisable to:

- ▶ remember that even when you are using different platforms or playing games, the exchanges you have with other players are in fact online communications.



### IDEAS FOR CLASSROOM WORK

— **Google search and alerts** – Have students perform a Google search using their name. Once they have seen text regarding themselves, invite them to click on images and scroll through the pages to better understand the extent and quality of their e-presence. And then, finally, invite the students to click on any video links they find to discover their "video e-presence".

— Depending on the results, students may be inclined to delete some of the information or consider increasing their positive content.

— **Social media cleanse** – If your students have social media accounts, ask them to go through their accounts one by one. They should scrutinise the information contained in those accounts: does it provide an accurate picture of the student? Are these the type of data that the students would like future recruiters, employers or

family members to see? If the answer is no, they should be kindly advised to delete the unwanted data.

■ **E-mail addresses** – If students have an e-mail address, invite them to explore the security settings in order to make their accounts more secure and to protect their e-presence. Make sure that the students do not include personally identifiable information in their e-mail address and advise them to consider using a nickname or avatar where possible.

■ **Understanding digital footprints** – Have younger students watch this eight-minute video on digital footprints: [www.youtube.com/watch?v=Ro\\_LIRg8rGg](http://www.youtube.com/watch?v=Ro_LIRg8rGg). Ask them to suggest effective ways to reduce their digital footprint.



### GOOD PRACTICE/LIVING DIGITAL CITIZENSHIP

■ More and more students are using chat groups as a way to share school assignments and stay in touch with class communications. Teachers may wish to exploit this already familiar form of communication and add an educational element. Some ideas include:

- ▶ real-time discussions on current events
- ▶ tutoring and guidance
- ▶ educational gaming interaction
- ▶ group investigation
- ▶ creation of an online community
- ▶ creation of posters, presentations or diagrams together in real time.

■ Consider that teachers and students have the ability to share beyond the walls of the classroom thanks to digital technology. Brainstorm with students on their favourite tech tools for communication and collaboration. Include ways to bring digital citizenship themes into the brainstorming session.

■ *Through the Wild Web Woods* is an online game from the Council of Europe for teaching children up to the age of 10 or 11 about basic internet safety, responsibility and civic-mindedness in a fun and friendly fairy-tale environment. The game is available in 14 European languages. The game was supported by and created in the spirit of "Building a Europe for and with children": [www.wildwebwoods.org/popup\\_langSelection.php](http://www.wildwebwoods.org/popup_langSelection.php).

■ The *Internet literacy handbook* is a guide for teachers, parents and students on getting the most out of the internet, protecting privacy on websites and social networks, and much more: <https://edoc.coe.int/en/internet/7515-internet-literacy-handbook.html>.

■ The *Digital Citizenship Roadshow* is a project to develop a Europe-wide internet safety and skills programme model, designed to give young people the capacities they need to stay safe online, become positive online citizens and increase their resilience to anti-social behaviour, hate and extremism online. The workshops are delivered by national youth engagement experts and educators from the local partner national organisations, supported by YouTube personalities or ambassadors working in a "host" role.



### FURTHER INFORMATION

■ The Council of Europe has materials relevant to this fact sheet in the *Internet literacy handbook*; please see ILH Fact sheet 2, "Online presence and the cloud"; Fact sheet 3, "Web 2.0, 3.0 and more"; Fact sheet 4, "Blogs and vlogs"; Fact sheet 5, "Internet on the go"; Fact sheet 7, "Chat and messaging media"; Fact sheet 8, "Social networking and social sharing"; Fact sheet 23, "Internet of things"; and Fact sheet 26, "Are you the product? Big data, data mining and privacy".

■ The European Commission provides a comprehensive glossary on digital presence and communication, and an overview of relevant groups in Europe: [https://ec.europa.eu/eurostat/cros/a-to-z\\_en](https://ec.europa.eu/eurostat/cros/a-to-z_en).

■ Turkle S. (2015), *Reclaiming Conversation: The Power of Talk in a Digital Age*, Penguin Press, New York.

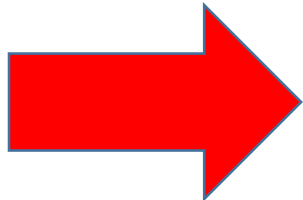
■ boyd d. (2014), *It's Complicated: The Social Lives of Networked Teens*, Yale University Press, New Haven.

■ Project tomorrow (<http://blog.tomorrow.org/>) is a blog with the following message: "Preparing today's students to be tomorrow's innovators, leaders and engaged citizens".

■ Write the world (<https://writetheworld.com>) is a global community for young students to share their writings with the world and discover what it is to be human by exploring the humanity of others.

■ Touchable Earth ([www.touchableearth.org](http://www.touchableearth.org)) is an app to teach pre-teens about the world and citizenship. "Touchable Earth is the first app where kids teach kids about the world. Taught entirely by school age children in short videos, Touchable Earth promotes tolerance for gender, culture, and identity".





<https://www.coe.int/en/web/digital-citizenship-education/-/being-child-in-the-age-of-technology-difgital-citizenship-education-handbook>

WWW.COE.INT HUMAN RIGHTS DEMOCRACY RULE OF LAW EXPLORE English Connect

COUNCIL OF EUROPE CONSEIL DE L'EUROPE Digital Citizenship Education

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## Newsroom

DIGITAL CITIZENSHIP EDUCATION HANDBOOK  
Being a Child in the Age of Technology

MARCH 2019



Digital Citizenship Education

### USEFUL LINKS

- Education
- Culture and Cultural Heritage
- No Hate Speech Movement
- Children's Rights

### INTERNET LITERACY HANDBOOK





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# What's inside?



Who's it for?

Families  
Children and Young  
People  
Educators  
Policy Makers  
Anyone



## 6. Internet – Looking forward

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” “Free expression is the base of human rights, the root of human nature and the mother of truth. To kill free speech is to insult human rights, to stifle human nature and to suppress truth”

*Liu Xiaobo, Nobel Peace Prize laureate of 2010 and human rights activist*

### CHECKLIST FACT SHEET 23 – INTERNET OF THINGS

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In the same manner that you already protect your computer and other devices from security intrusions, be sure to apply those measures to your “Internet of things” devices.

Be aware that it is difficult to protect every individual device, but that you can protect your network and reduce your areas of vulnerability.

Carefully consider any “Internet of toys” items that you plan on introducing into your home and to your child. Check the security and privacy parameters of the toy and ask yourself: “How necessary is this toy?”

# Internet of things



provide  
information

and

promote  
reflection

The technological advances evidenced by the recent development of Internet and wireless connectivity to data-enabled devices are causing excitement in many areas. This budding field of development known as the "Internet of things" (IoT) where web-connected devices enhance company efficiency and lifestyle convenience may also cause huge concern to parents and individuals alike.

Concerns about security, privacy and data collection are just a few issues that experts and policy





before cutting the engine on a vehicle. The actions of the two hackers have sparked debate on digital security for cars and trucks.

■ Another area of debate is the idea that the IoT is the next industrial revolution. Today there are an estimated 10 billion connected devices, but estimated growth of this new trend in the market is expected to hit between 26 billion and 30 billion devices by 2020, with an estimated market worth of between US\$6 trillion and US\$9 trillion<sup>2</sup>.

■ This will lead to an explosion in connected devices and a corresponding explosion in data. The General Data Protection Regulation will face new challenges in protecting privacy, when data is ubiquitous.



## INTERNET OF THINGS

- The term "Internet of things" first emerged in 1999, but it was not until several years later that we saw the real existence of Internet-connected objects.
- The IoT<sup>3</sup> is the network of physical objects or things embedded with electronics, software, sensors and connectivity to enable them to collect and exchange data.
- The IoT is used to describe everything from intelligent thermostats that turn up the heating before you get home to refrigerators that order orange juice when you have run out. People are wearing health and fitness trackers and animals are being fitted with health and location trackers<sup>4</sup>.
- The IoT simply means Internet connectivity where devices can talk to each other, making it easier to control and automate tasks – and collect data.
- The Pew Research Center believes that the IoT and "wearables" will have widespread and beneficial effects<sup>5</sup> by 2025.



## WEARABLE TECHNOLOGY

- "Wearable technology" or "wearables" are clothing and accessories incorporating computer and advanced electronic technologies.
- Wearables are also called fashionable technology, wearable devices, tech togs or fashion electronics<sup>6</sup>.
- Wearables provide instant data to the user and the user is able to instantly monitor the technology, download it for later use or send a printout.



## INTERNET OF TOYS

- The IoT can also be applied to toys for children. Wireless connectivity will allow a toy to interact with other data-enabled devices or other toys.
- The Internet of toys is presenting new ways to introduce young people to technology and often encourages them to interact with the toy.
- Hello Barbie, a Mattel Internet of toys venture created in 2015 where Barbie can listen to children, caused concern for parents and privacy experts, as well as leading psychologists, who wonder if these types of toys would cause developmental issues for children, affecting their ability to create, imagine and learn autonomously. ToyTalk, a 2011 company, offers a different opinion and argues that talking toys and Wi-Fi enabled toys can offer learning opportunities to children<sup>7</sup>.



- Despite the convenience offered by the Internet of things and wearables, and despite the diversion and fun offered by the Internet of toys, users may not be sufficiently aware that IoT and toy devices, just like smartphones and computers, may pose security and privacy risks. In the case of toys, there may perhaps even be child-development risks.



## IMPORTANCE OF UNDERSTANDING THE ISSUES



- The IoT includes wearable devices that many users may not consider as a “computing device”; as such they risk ignoring privacy issues.
- The techno-futurist visions of the IoT and wearables are attractive to many. However, the entry-level positioning of the IoT means that more research needs to be done. As cybersecurity firms have learned in the past, people with criminal intent are working harder and faster to create new ways to achieve their end goal.
- The advance of toy companies into the domain of the IoT means fantastic new toys for young people, but parents need to understand the risks of having open microphone devices in the hands of young people and open data links in their own homes.



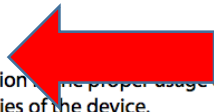
## ETHICAL CONSIDERATIONS AND RISKS



- The ultimate goal of the IoT is to increase efficiency, but the interconnectivity that accompanies this increased efficiency may pose considerable risks.
  - The idea that people can remotely access your devices and your data is a frightening prospect.
  - The majority of devices and wearables are not designed with optimal security or privacy in mind.
  - Recent intrusions showed hackers viewing people in their homes via baby monitors and webcams<sup>8</sup>.
  - Consumers may be as “at-risk” of cyber-intrusion as they used to be of physical intrusion in their homes.
  - Consumers will need to be aware that the General Data Protection Regulation gives them control over their data and they should inform themselves about how this will work in practice.



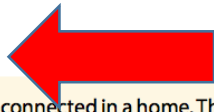
## HOW TO



- IoT devices vary in design and function. The most important instruction in the proper usage of the device is to read the instructions and to understand the functionalities of the device.
- It is necessary to go through the settings functions in order to disable or enable proper settings that afford privacy where you want it.
- Consider doing research on the device before purchase as some wearables have been recalled or do not function as marketed.
- Remember that this is a developing field and, if you wait a few weeks or months, there is always something newer, better and often less expensive on the market.



## IDEAS FOR CLASSROOM WORK



- Have students create a list of all the possible devices that could be connected in a home. Then ask them to list potential security or privacy risks. What can the user do to reduce the risks? What can the device provider do? What can the Internet service provider do?





- After a discussion on the IoT, ask the students to draft potential instructions to consumers to help consumers understand security issues.
- Read a summary of the General Data Protection Regulation and ask the students to list all the clauses pertinent to the IoT<sup>9</sup>.
- Download the video clip on the consumer rights awareness campaign<sup>10</sup> and engage the students in a discussion about consumer rights and the IoT.
- Ask young people to “develop” new toys for the Internet of toys. What are the benefits of the toy? What are the risks? How can they protect young users? How can they reassure parents that the toy is safe?



## GOOD PRACTICE

It is important to be open to embracing this new technology, but you should be sure to take appropriate security measures to protect your data and your privacy.

- Restrict personal information on data-enabled devices.
- Reinforce your security on your home wireless network.
- Select strong passwords.
- Where possible, keep certain devices separate from each other.
- Limit Internet of toy interactions with your other devices, and be sure to monitor their capabilities.

### Consumers must be attentive to several issues when selecting an IoT device:

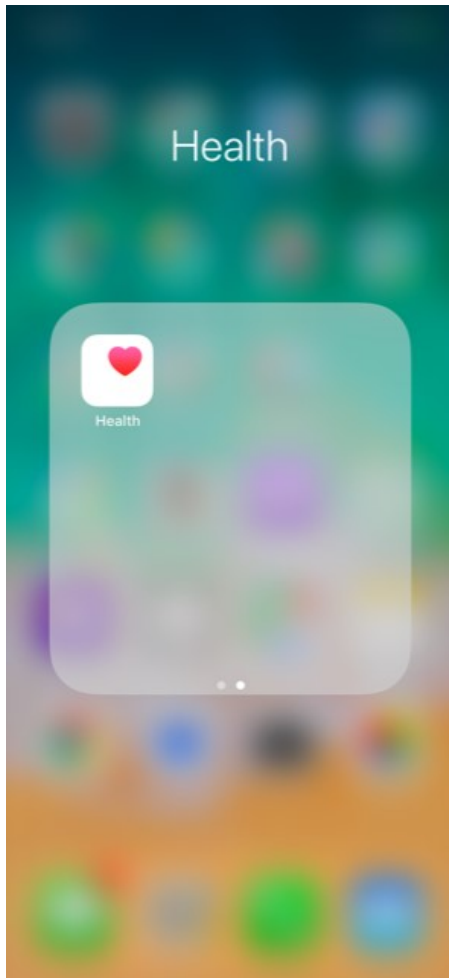
- **Compatibility and interoperability:** is the device compatible with devices from other manufacturers or do you need to stay in the same “ecosystem” to be able to use the device? This is extremely important, as otherwise you will be “locked in” with that manufacturer with no way to switch or integrate other devices from other manufacturers.
- **Connectivity:** does the IoT device rely only on Internet connectivity to function properly? Ideally, you should be able to access the device without having to connect to the Internet. This is especially important as, if your device manufacturer closes down the online platform for accessing your device, it will effectively become useless.



## FURTHER INFORMATION

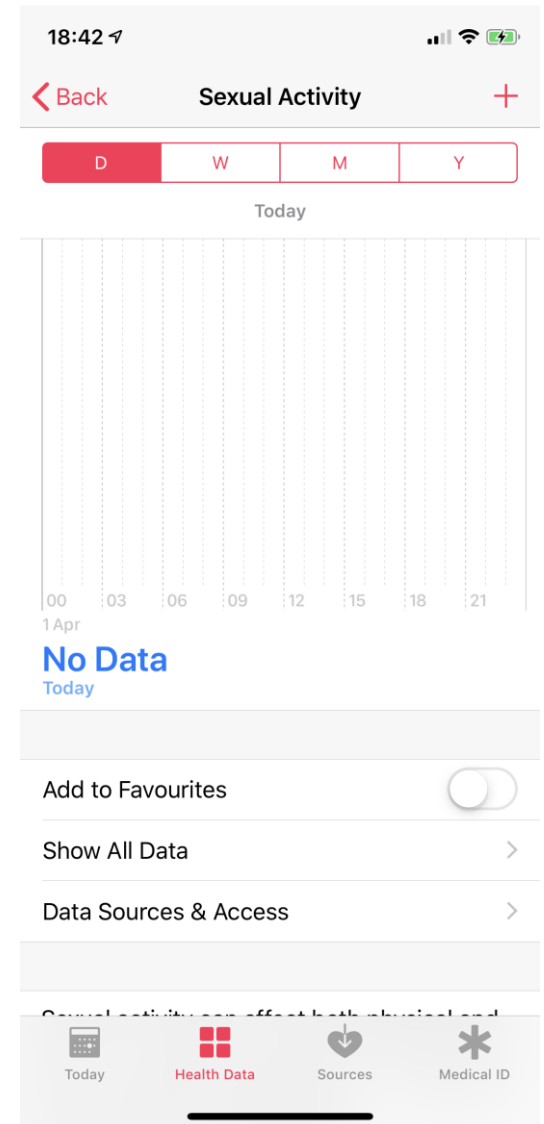
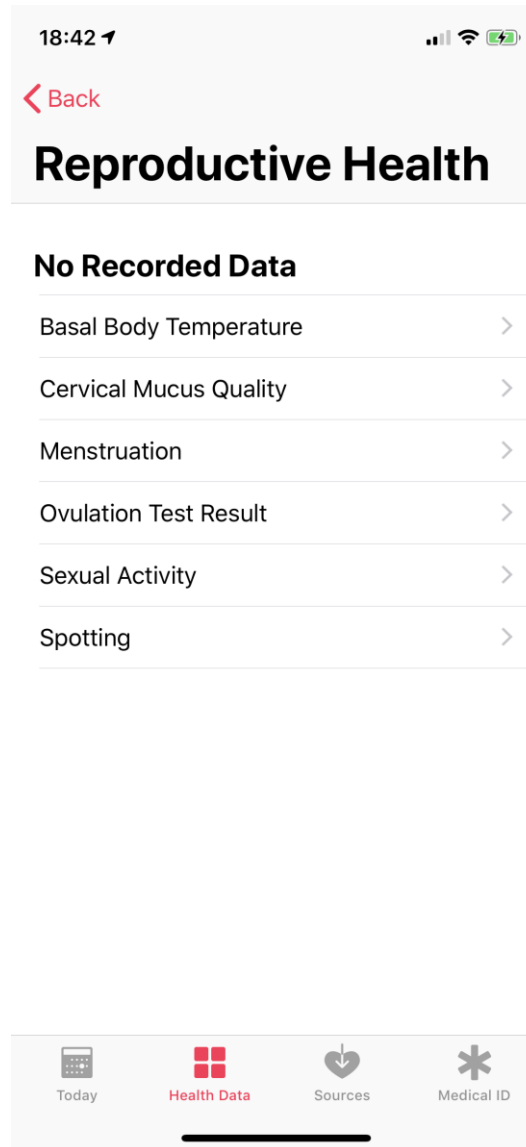
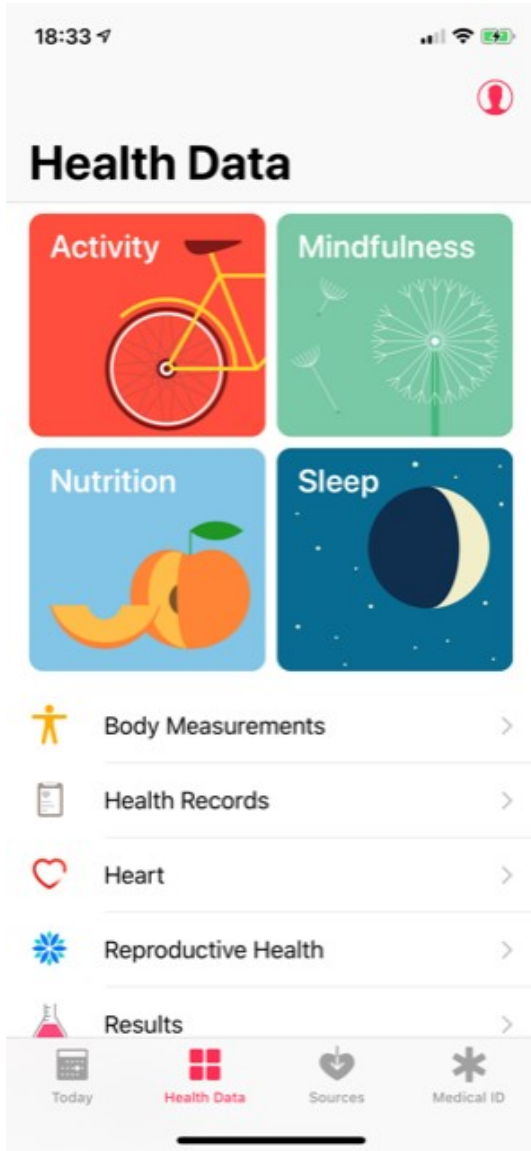
- More information on EU “Consumer rights and law” can be found at: [http://ec.europa.eu/consumers/consumer\\_rights/index\\_en.htm](http://ec.europa.eu/consumers/consumer_rights/index_en.htm).
- The Guardian has reported on the Internet of things: <http://www.theguardian.com/technology/internet-of-things>.
- More information on the Internet of things can be found on Intel’s infographic: [www.intel.com/content/www/us/en/internet-of-things/infographics/guide-to-iot.html](http://www.intel.com/content/www/us/en/internet-of-things/infographics/guide-to-iot.html).
- Disney has carried out research on the Internet of toys: <http://www.disneyresearch.com/project/calipso-internet-of-things/>.
- An Internet of toys guide can be found at: <http://www.mutualmobile.com/posts/iot-internet-toys>.
- There is also detailed information from the Children’s Digital Media Center: <http://cdmc.georgetown.edu/publications-and-papers/textbooks/>.
- Relevant Council of Europe documents: “Human rights for Internet users – Children and young people” <http://www.coe.int/en/web/internet-users-rights/children-and-young-people>.

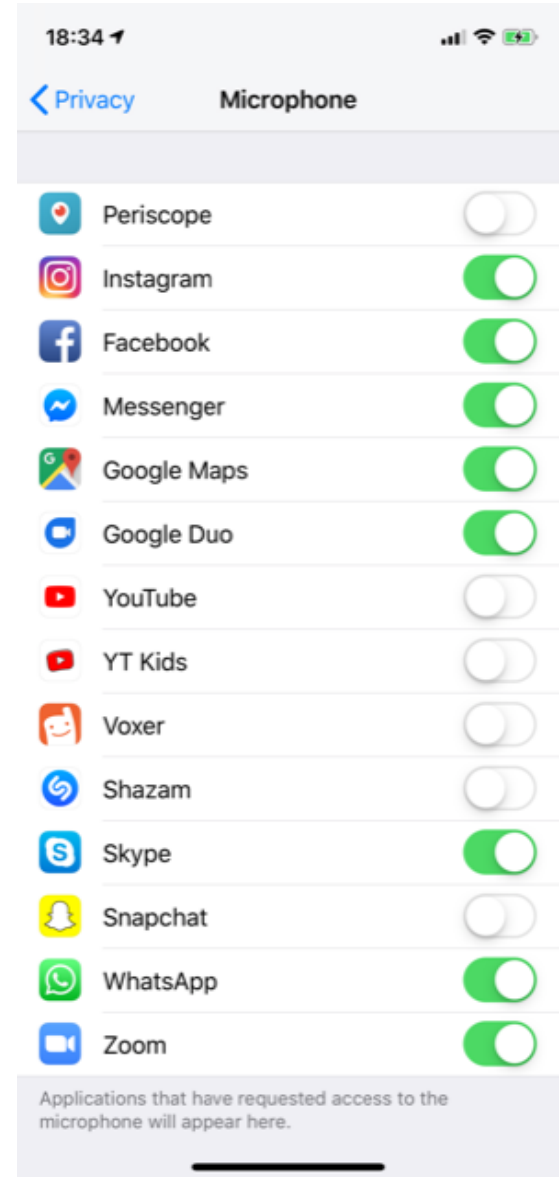
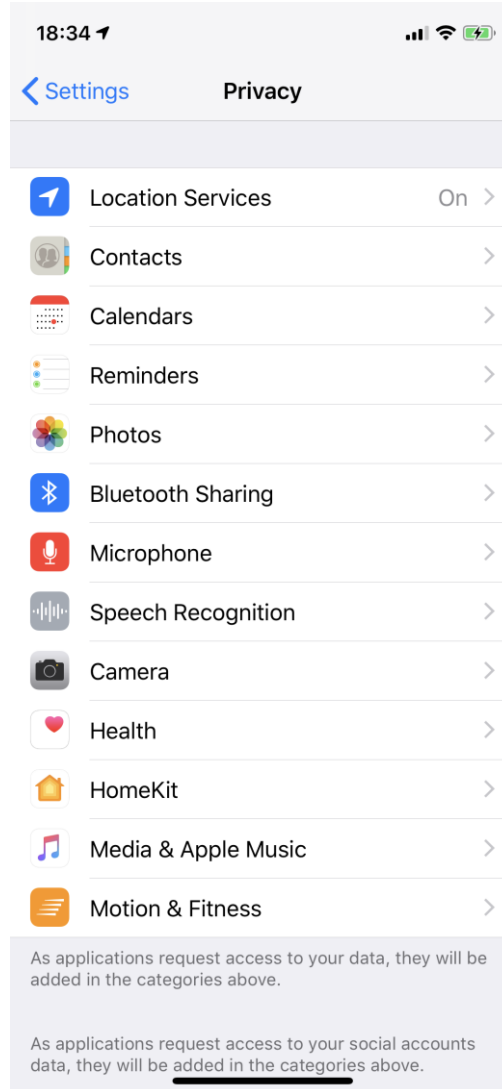
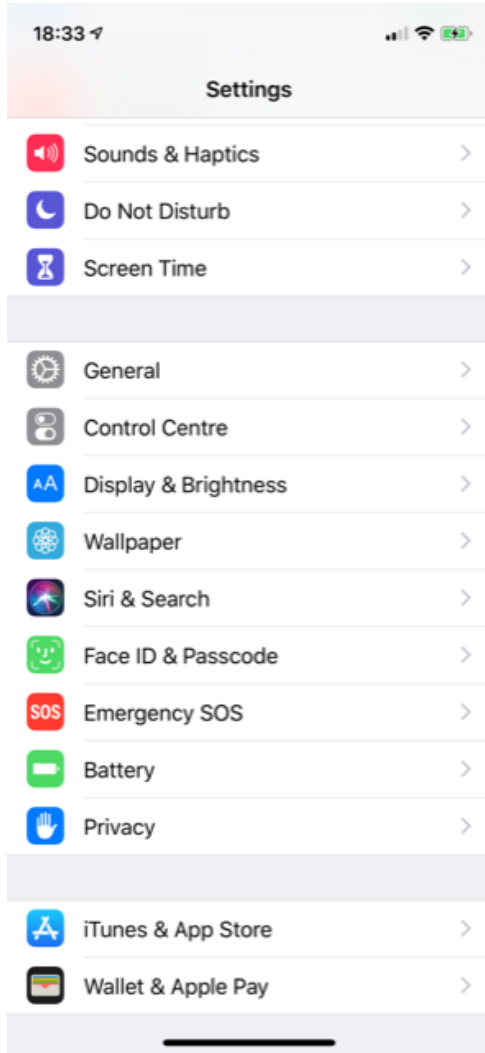




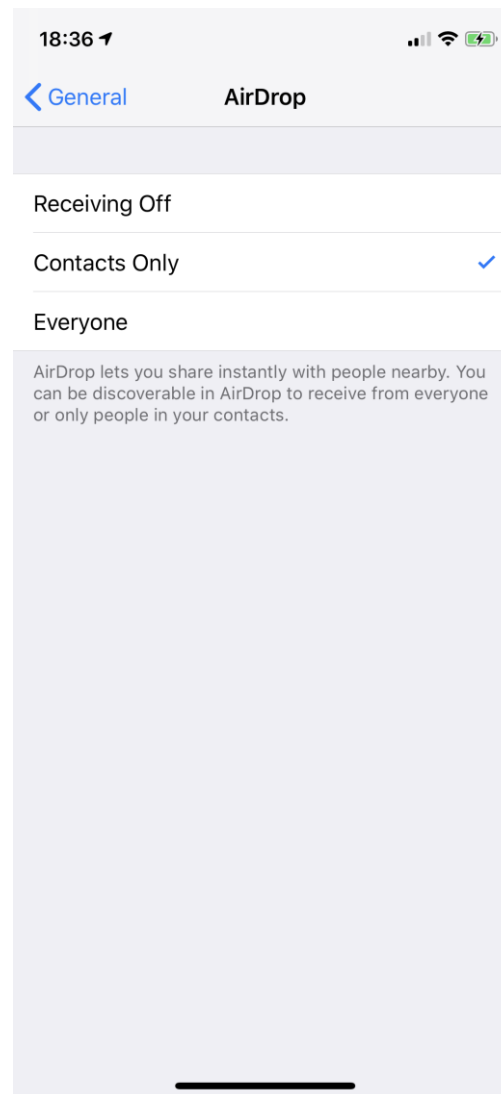
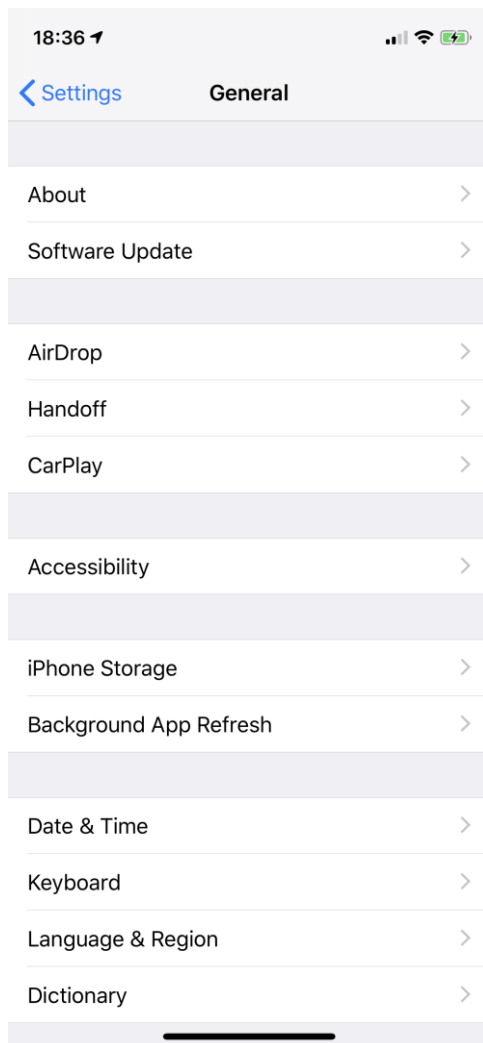
Education  
begins with  
what is in  
our  
~~children's~~  
hands.













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