Session 1: Global Technology Standards - DigComp & ISTE

GOVERNMENT
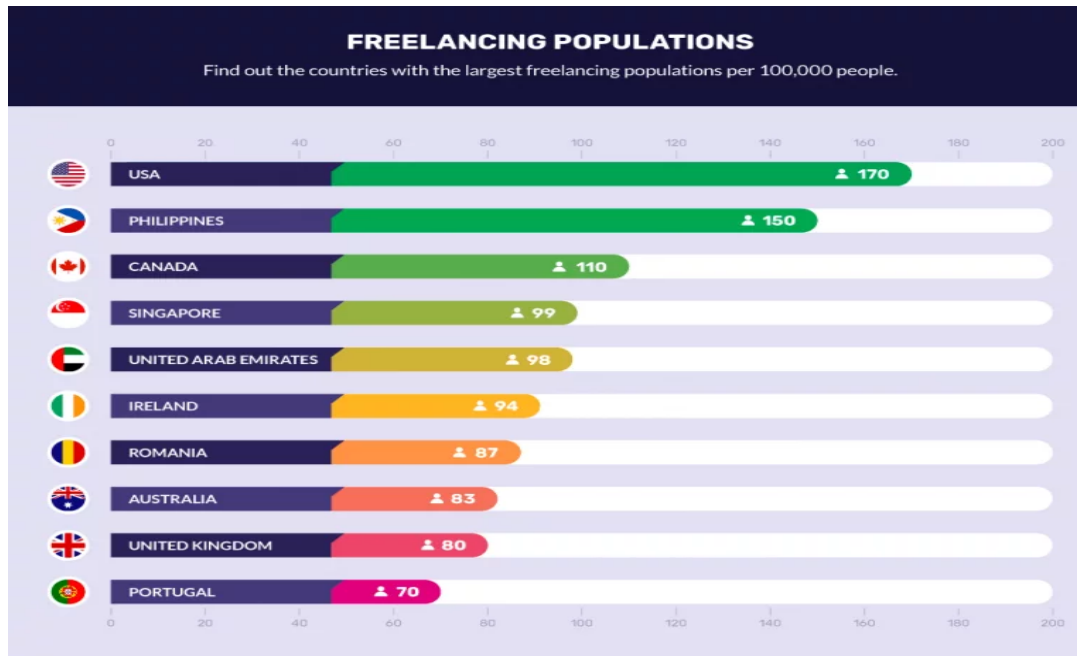ACADEME
INDUSTRY
NETWORK, Inc

GAIN

Digital Nomad

Digital Nomads Are Taking 'Working Remotely' To A Whole New Level

https://www.youtube.com/watch?v=gTDPhXYBcLQ

The Freelancing Economy

- It's estimated around 2% of the Philippine Population are digital freelancers

FREELANCING POPULATIONS
Find out the countries with the largest freelancing populations per 100,000 people.

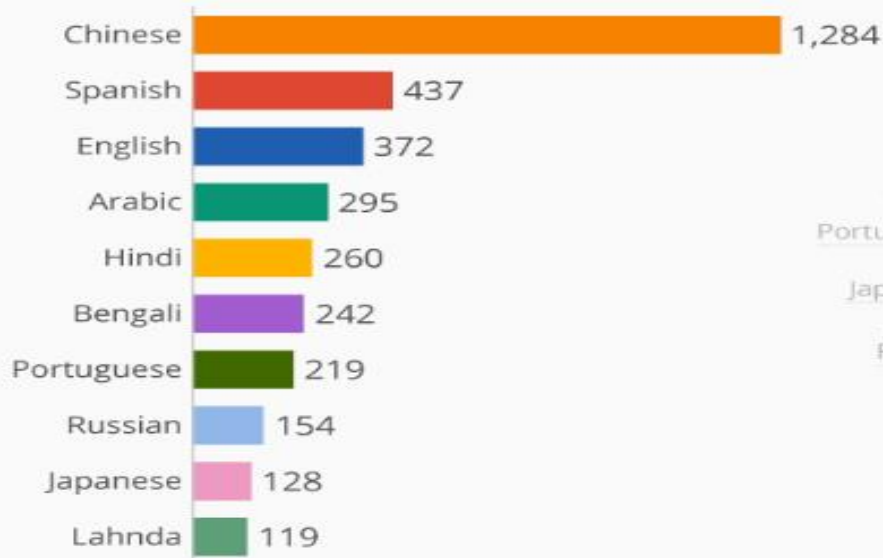| Country	Freelancers per 100,000
USA	170
PHILIPPINES	150
CANADA	110
SINGAPORE	99
UNITED ARAB EMIRATES	98
IRELAND	94
ROMANIA	87
AUSTRALIA	83
UNITED KINGDOM	80
PORTUGAL	70

Some personal stories

- In my personal volunteer time, I work for a Google company – (through Upwork) – anywhere in the world. My previous quick team meeting (4 countries was all in English)

- One of my high school friends was hired by a US Brand ($2,500 a month) tax free (after 1 month of looking for work) to manage their Amazon US Store
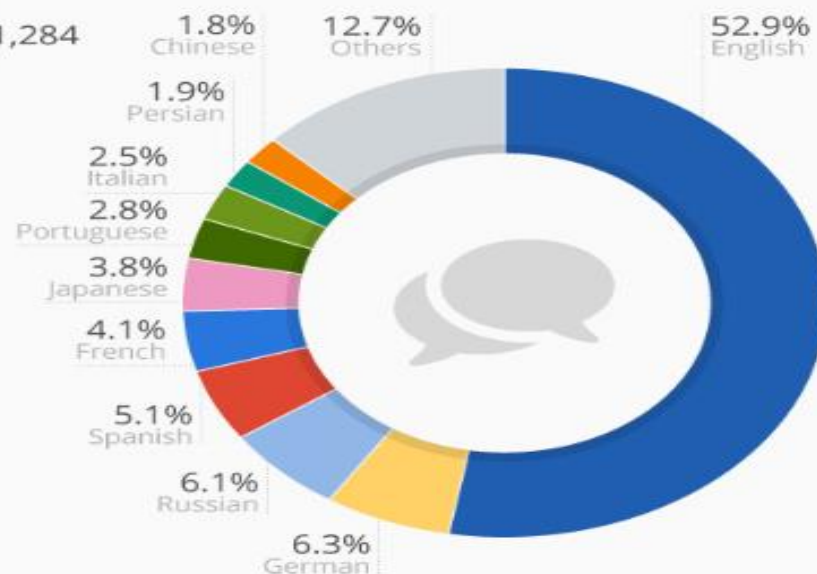
The Language of the Internet

Two Worlds: Languages IRL and Online

Estimated number of first-language speakers worldwide in 2017 (millions)*

Language	Millions
Chinese	1,284
Spanish	437
English	372
Arabic	295
Hindi	260
Bengali	242
Portuguese	219
Russian	154
Japanese	128
Lahnda	119

Percentage of websites using various content languages*

- 52.9% English
- 12.7% Others
- 1.8% Chinese
- 1.9% Persian
- 2.5% Italian
- 2.8% Portuguese
- 3.8% Japanese
- 4.1% French
- 5.1% Spanish
- 6.1% Russian
- 6.3% German

* Each language also includes associated member languages and varieties

@StatistaCharts   Sources: w3techts.com, Ethnologue

statista

- **Learning how to learn!!**

- **Mastery of basic skills:**
  - Digital Literacy/Proficiency
  - Language of the Internet (English)

10 JOB TITLES THAT DIDN'T EXIST 10 YEARS AGO

- IOS DEVELOPER
- BIG DATA ANALYST
- SOCIAL MEDIA MANAGER
- YOUTUBE CONTENT CREATORS
- UBER DRIVER
- DRONE OPERATORS
- DRIVERLESS CAR ENGINEER
- ONLINE COMMUNITY MANAGER
- CLOUD COMPUTING SPECIALIST
- UX DESIGNER

Illustrated by: Larry Kim (@larrykim)
MobileMonkey, Inc.

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- **ISTE 2016 Standards for Students –** The most popular digital standards framework in the USA (Non-profit organization)

- **DigComp 2.0 Framework** – Collaboration of the European Union (Official Digital Framework of the EU), similar to the CEFR (for languages)

ISTE Standards
STUDENTS•2016

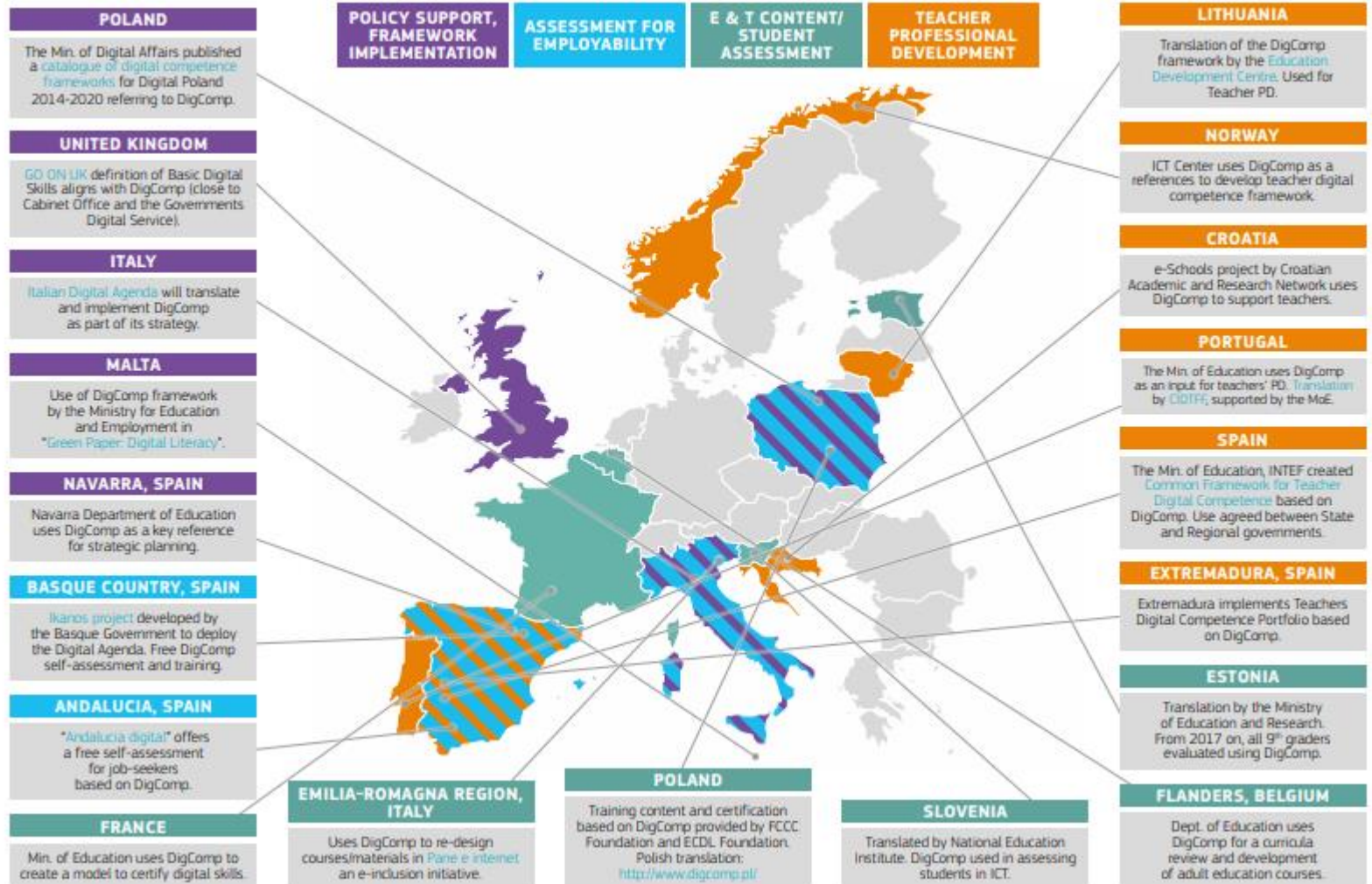| 1998	2007	2016
Computer lab	Laptop carts	1:1
Computer teacher	Innovative teachers	All teachers
Teacher directed	Student-centered	Learner-driven
How to use tech	Using tech to learn	Amplifying learning with tech

Benefits of DigComp / ISTE Standards

Position	Benefits for you
SENIOR MANAGEMENT	IT COMPELS HEADS TO EQUIP THEIR COMPANIES AND THEIR PEOPLE WITH THE TECHNOLOGICAL SYSTEMS AND HUMAN RESOURCES DIGITAL COMPETENCIES NEEDED FOR THE ACHIEVEMENT OF THEIR TARGETS
HR SPECIALIST	1) IT EQUIPS THE HR PROFESSIONALS WITH THE KNOWLEDGE AND SKILLS TO UNDERSTAND THE VARIOUS LEVELS OF DIGITAL COMPETENCIES 2) IT ALLOWS HR PROFESSIONALS TO MATCH THE TECHNOLOGICAL REQUIREMENTS OF A SPECIFIC JOB AGAINST THE TECHNOLOGICAL SKILLS of a JOB CANDIDATE 3) IT GUIDES TRAINING PROGRAMS TO FOCUS ON SPECIFIC DIGITAL PROFICIENCY PROGRAMS

Benefits of DigComp / ISTE Standards

Position	Benefits for you
ACADEMICIAN	1) TO ENSURE THAT STUDENTS AND GRADUATES ARE EMPLOYABLE , THE CURRICULUM SHOULD BE ALIGNED TO DIGITAL INTERNATIONAL STANDARDS 2) TO ENSURE THAT CLASSROOM ASSESSMENTS TRULY MEASURE THE DIGITAL COMPETENCY LEVEL OF THE STUDENT , INTERNATIONAL STANDARDS SHOULD BE USED BEYOND CLASSROOM GRADES
ADULT LEARNER	TO ENSURE THAT ONE IS NOT DECLARED REDUNDANT OR IRRELEVANT IN THE COMPANY, ONE MUST TRY TO KEEP UP WITH THE DIGITAL LEVEL OF PROFICIENCY REQUIRED OF THE JOB

Digcomp 2.0 in the EU

POLICY SUPPORT, FRAMEWORK IMPLEMENTATION

ASSESSMENT FOR EMPLOYABILITY

E & T CONTENT/ STUDENT ASSESSMENT

TEACHER PROFESSIONAL DEVELOPMENT

POLAND

The Min. of Digital Affairs published a catalogue of digital competence frameworks for Digital Poland 2014-2020 referring to DigComp.

UNITED KINGDOM

GO ON UK definition of Basic Digital Skills aligns with DigComp (close to Cabinet Office and the Governments Digital Service).

ITALY

Italian Digital Agenda will translate and implement DigComp as part of its strategy.

MALTA

Use of DigComp framework by the Ministry for Education and Employment in "Green Paper: Digital Literacy".

NAVARRA, SPAIN

Navarra Department of Education uses DigComp as a key reference for strategic planning.

BASQUE COUNTRY, SPAIN

Ikanos project developed by the Basque Government to deploy the Digital Agenda. Free DigComp self-assessment and training.

ANDALUCIA, SPAIN

"Andalucia digital" offers a free self-assessment for job-seekers based on DigComp.

FRANCE

Min. of Education uses DigComp to create a model to certify digital skills.

EMILIA-ROMAGNA REGION, ITALY

Uses DigComp to re-design courses/materials in Pane e internet an e-inclusion initiative.

POLAND

Training content and certification based on DigComp provided by FCCC Foundation and ECDL Foundation. Polish translation: http://www.digcomp.pl/

SLOVENIA

Translated by National Education Institute. DigComp used in assessing students in ICT.

LITHUANIA

Translation of the DigComp framework by the Education Development Centre. Used for Teacher PD.

NORWAY

ICT Center uses DigComp as a references to develop teacher digital competence framework.

CROATIA

e-Schools project by Croatian Academic and Research Network uses DigComp to support teachers.

PORTUGAL

The Min. of Education uses DigComp as an input for teachers' PD. Translation by CIDTFF, supported by the MoE.

SPAIN

The Min. of Education, INTEF created Common Framework for Teacher Digital Competence based on DigComp. Use agreed between State and Regional governments.

EXTREMADURA, SPAIN

Extremadura implements Teachers Digital Competence Portfolio based on DigComp.

ESTONIA

Translation by the Ministry of Education and Research. From 2017 on, all 9ᵗʰ graders evaluated using DigComp.

FLANDERS, BELGIUM

Dept. of Education uses DigComp for a curricula review and development of adult education courses.

The 2016 **ISTE Standards for Students** reflect current shifts in the field and are meant to prepare students for the future

The Digcomp is most popular in the European Union. As it is a multi-country framework, it is better for

DigComp Competence Areas

In DigComp, there are 5 competence areas which outline the key components of the digital competence. They are the following: Information and data literacy; Communication and collaboration; Digital content creation; Safety; and Problem solving.

Competence areas 1, 2 and 3

Deal with competences that can be retraced in terms of specific activities and uses.

Competence areas 4 and 5

Are "transversal" as they apply to any type of activity carried out through digital means. Problem solving elements, in particular, are present in all competence areas, but a specific area was defined to highlight the importance of this aspect for the appropriation of technology and digital practices.

Dimension 5

Provides examples of use applied to employment, and to education and training.

DigComp Competency Areas

- **5 DigComp Areas**
- **3-5 Competency standards under each area**
- **Each Competency standard is described by 1 page of descriptors**
- **Can download at:** https://publications.jrc.ec.europa.eu

DigComp Area	DigComp Competences
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

Elements of ISTE

ISTE has **7** domains.

Each Domain has **4** standards

Total of **28** Standards

1	**Empowered Learner**	Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.
2	**Digital Citizen**	Students recognize the rights, responsibilities and opportunities of living, learning and working in an interconnected digital world, and they act and model in ways that are safe, legal and ethical.
3	**Knowledge Constructor**	Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts and make meaningful learning experiences for themselves and others.
4	**Innovative Designer**	Students use a variety of technologies within a design process to identify and solve problems by creating new, useful or imaginative solutions.
5	**Computational Thinker**	Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.
6	**Creative Communicator**	Students communicate clearly and express themselves creatively for a variety of purposes using the platforms, tools, styles, formats and digital media appropriate to their goals.
7	**Global Collaborator**	Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

- Match which Areas/Domains belong to DigComp / ISTE

LAUNCH QUIZZIZ GAME

- For a group of standards – choose which domain would match the standard (in either DigComp / ISTE)

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ISTE

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Summary

- The workplace of the new normal is **global**

- **2 million Filipinos are now participating** in the Freelancer economy (Can work anywhere in the World.. Maybe Siargao as the new office?)

- Two sets of Digital standards are popularly used to describe **Digital Literacy** – namely DigComp and ISTE