# Integrating ISTE into the Curriculum and Setting Cut-off Standards for College Levels or Graduation Requirement

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GAIN Masterclass 2 on Digital Proficiency International Standards

October 28, 2021

# Social Media

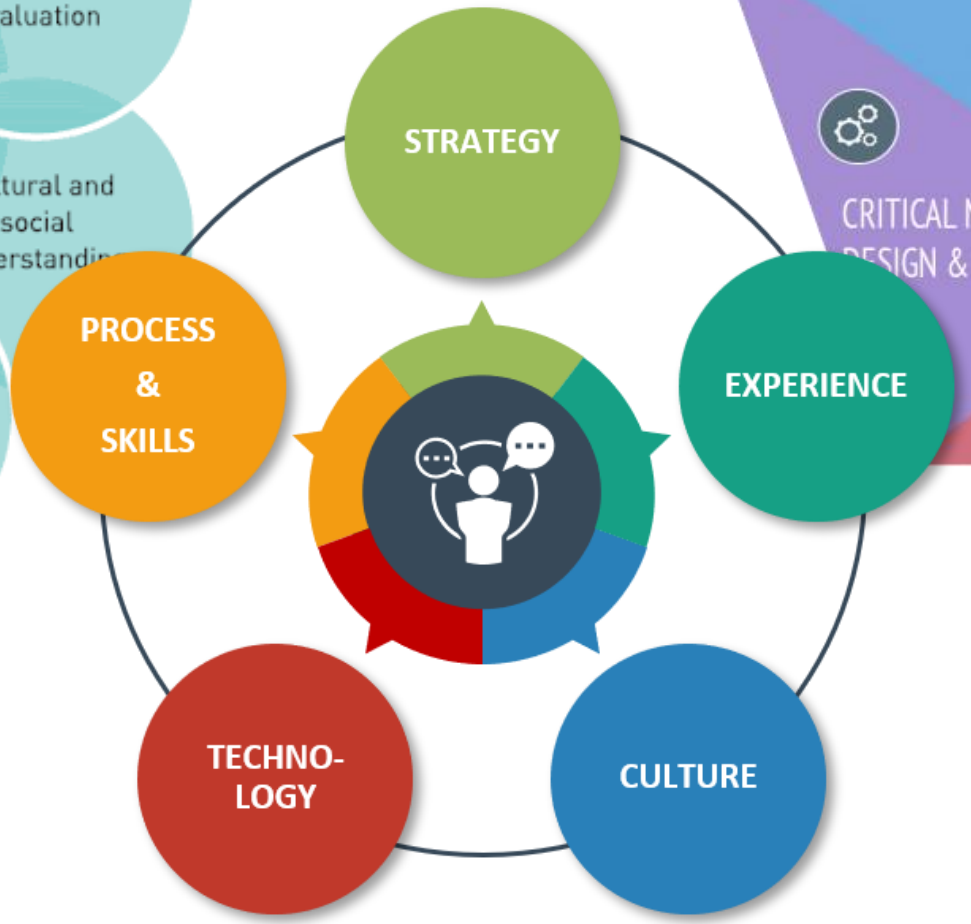
#GAINMasterClass2

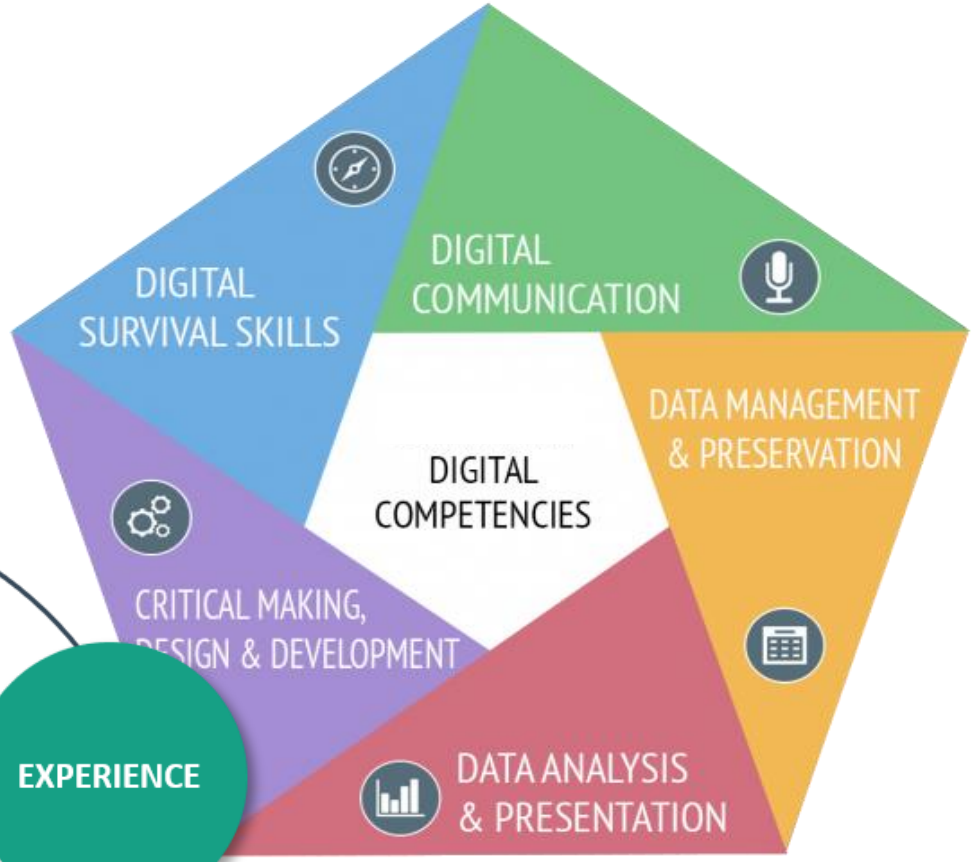
#ISTE

#digitalproficiency

#internationalstandards

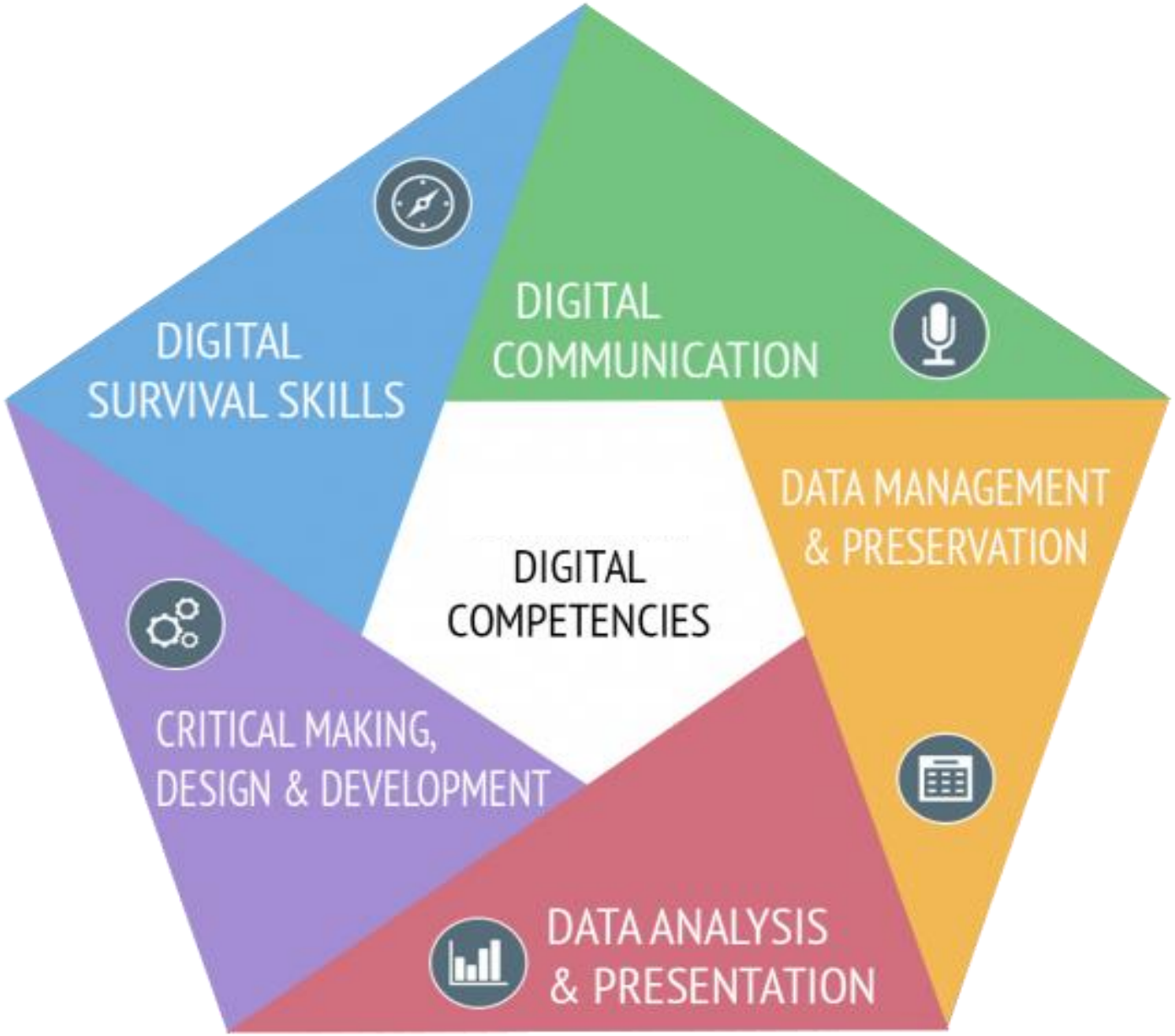

Digital Literacy
Functional skills
Creativity
Critical thinking and evaluation
Cultural and social understandin
Collaboration
The ability to find and select information
Effective communication
E-safety


STRATEGY
EXPERIENCE
CULTURE
TECHNO-LOGY
PROCESS & SKILLS

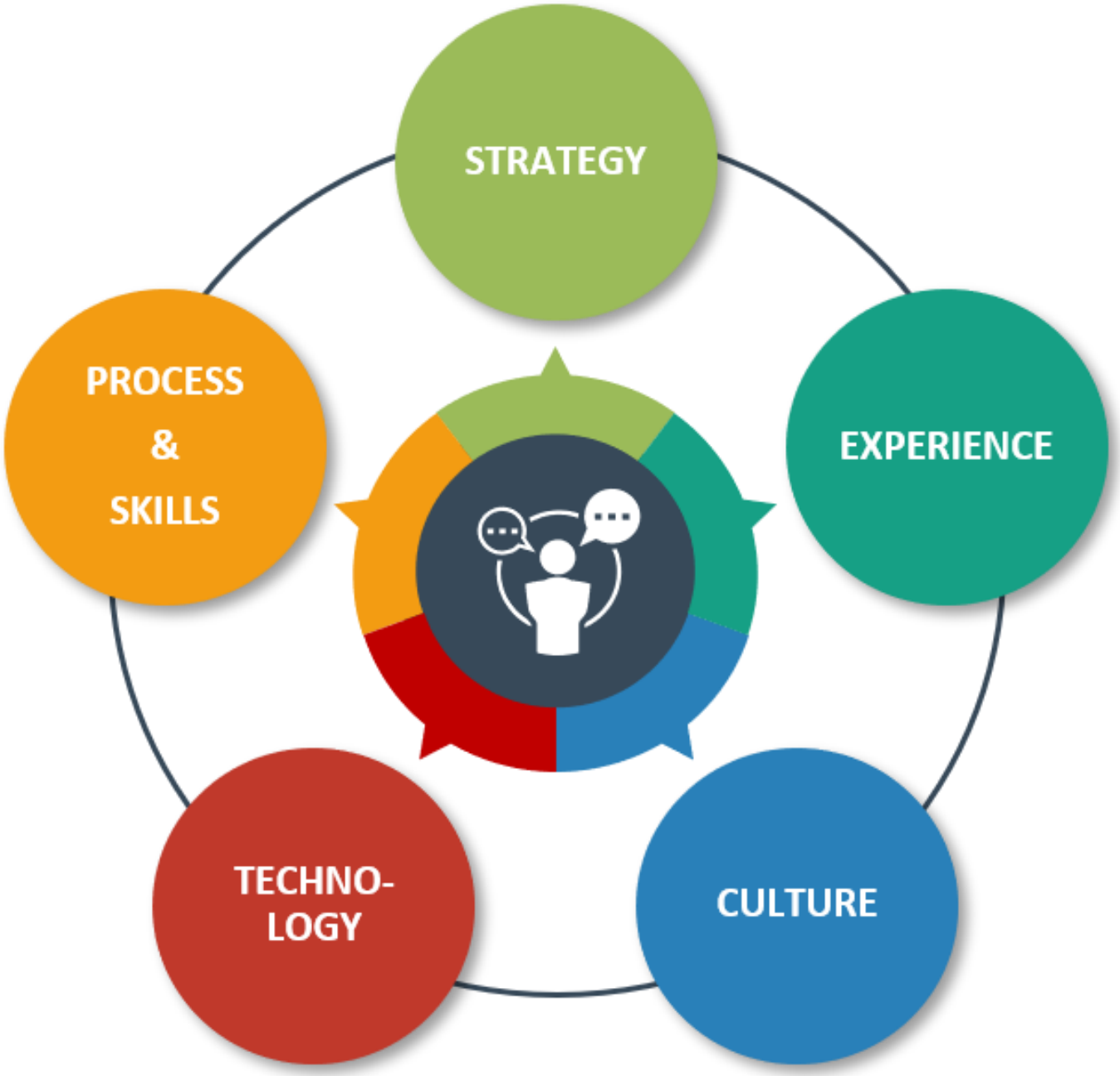

DIGITAL SURVIVAL SKILLS
DIGITAL COMMUNICATION
DATA MANAGEMENT & PRESERVATION
DIGITAL COMPETENCIES
CRITICAL MAKING, DESIGN & DEVELOPMENT
DATA ANALYSIS & PRESENTATION

# Digital Literacy

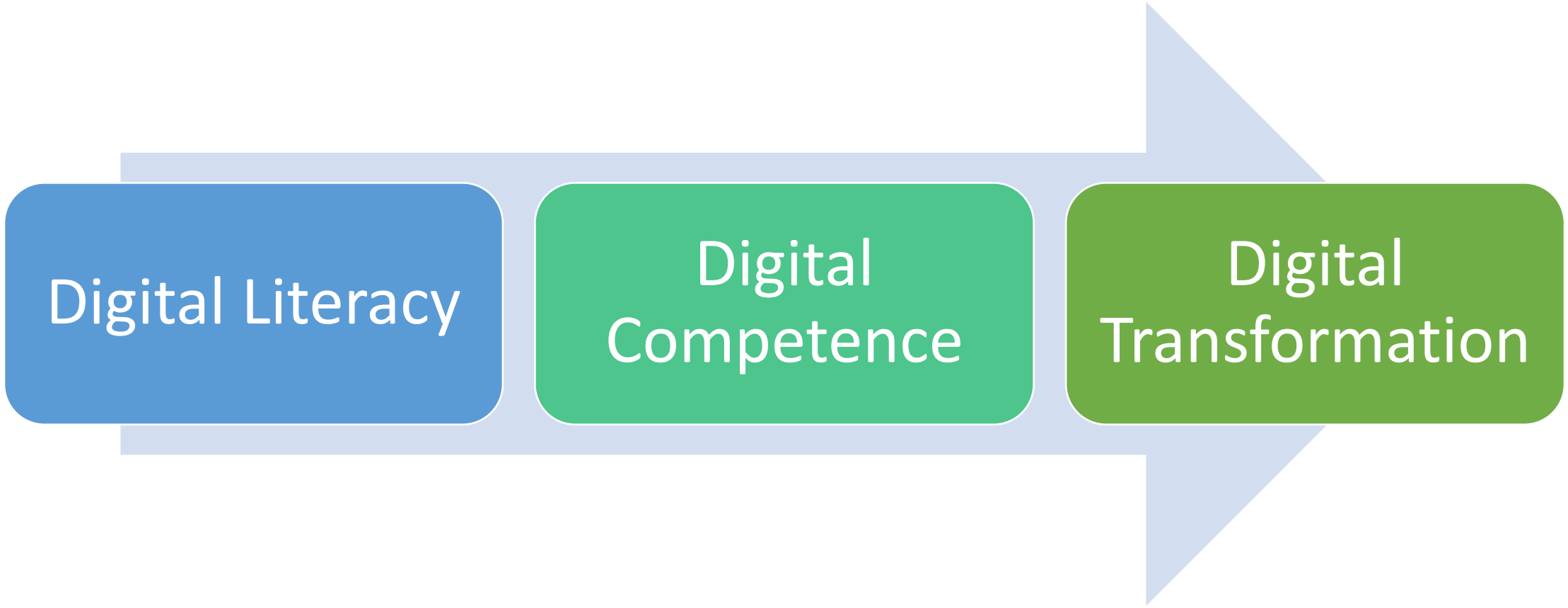
# Digital Competence



# Digital Transformation

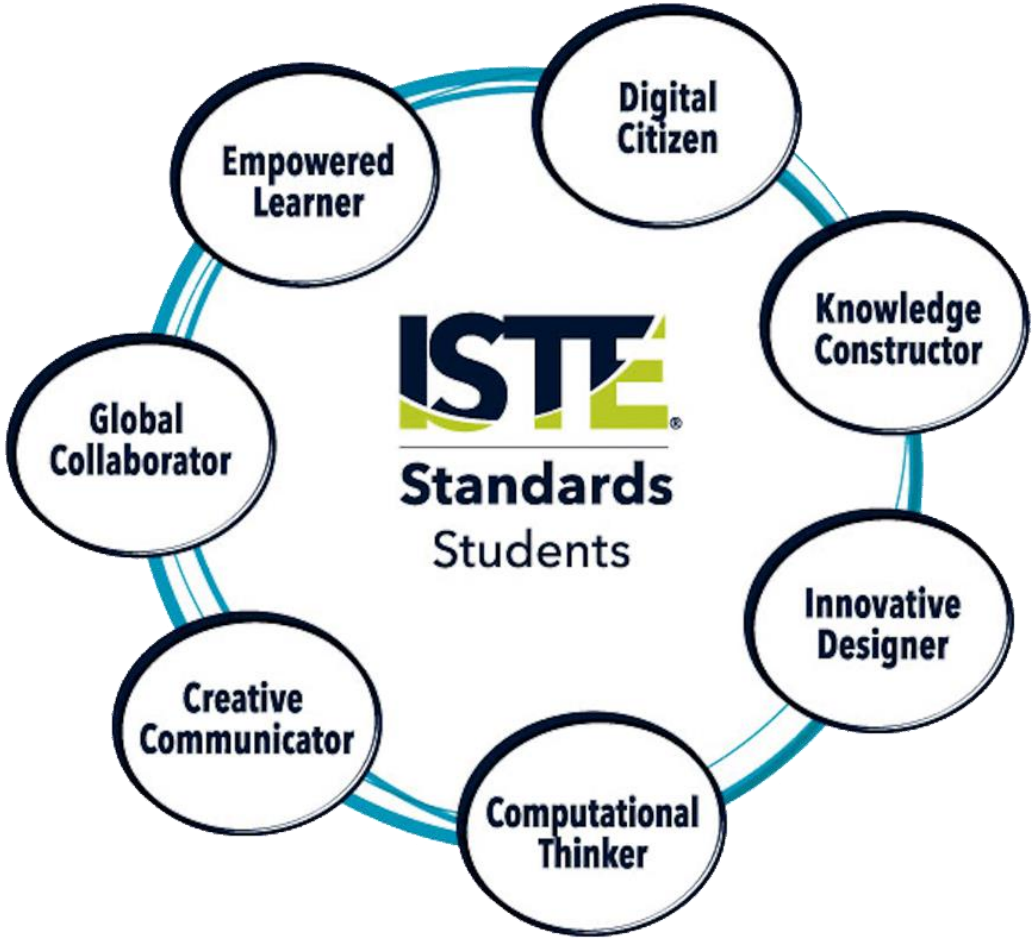


# What we wish students to be..



# Gen Z

# Digital Standards




# Comparison of 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. |

| DigComp Area | DigComp Competences |
|---|---|
| **Information and Data Literacy** | Browsing, searching and filtering data, information and digital content<br>Evaluating data, information and digital content<br>Managing data, information and digital content |
| **Communication and Collaboration** | Interacting through digital technologies<br>Sharing through digital technologies<br>Engaging in citizenship through digital technologies<br>Collaborating through digital technologies<br>Netiquette<br>Managing digital identity |
| **Digital Content Creation** | Developing digital content<br>Integrating and re-elaborating digital content<br>Copyright and licences<br>Programming |
| **Safety** | Protecting devices<br>Protecting personal data and privacy<br>Protecting health and well-being<br>Protecting the environment |
| **Problem Solving** | Solving technical problems<br>Identifying needs and technological responses<br>Creatively using digital technologies<br>Identifying digital competence gaps |

# Proficiency Levels

| Proficiency | Levels | | Complexity of Tasks | Cognitive Domain |
|---|---|---|---|---|
| Foundation | Starter | 1 | Solve simple tasks with guidance | Remembering |
| | Elementary | 2 | Solve simple tasks with autonomy guidance where needed | |
| Intermediate | Intermediate | 3 | Solve well-defined and routine tasks and deal with straightforward problems independently | Understanding |
| | Upper Intermediate | 4 | Solve tasks and deal with non-routine problems independent and according to needs | |
| Proficient/ Advanced | Pre-advanced | 5 | Solve many different tasks and problems and help guide others | Applying |
| | Advanced | 6 | Select the most appropriate tasks and able to adapt solutions to others in a complex context | Evaluating |
| Specialized | Specialized | 7 | Resolve complex problems with limited solutions and contribute to the professional practice | Analyzing |
| | Highly Specialized | 8 | Resolve complex problems with many interacting factors and propose new ideas and processes to the field | Creating |

# Competence Area 1: Information and data literacy >> 1.1 Browsing, searching and filtering data, information and digital content

| Proficiency | Levels | | Criteria |
|---|---|---|---|
| Foundation | Starter | 1 | At basic level and with guidance, student can:<br>• Identify information needs<br>• Find data, information and content through a simple search in digital environments<br>• Find how to access these data, information and content and navigate between them<br>• Identify simple personal search strategies |
| | Elementary | 2 | At basic level and with autonomy and appropriate guidance when needed, student can:<br>• Identify information needs<br>• Find data, information and content through a simple search in digital environments<br>• Find how to access these data, information and content and navigate between them<br>• Identify simple personal search strategies |

# Competence Area 1: Information and data literacy >> 1.1 Browsing, searching and filtering data, information and digital content

| Proficiency | Levels | | Criteria |
|---|---|---|---|
| Intermediate | Intermediate | 3 | Independently and solving straightforward problems, student can:<br>• Explain information needs<br>• Perform well-defined and routine searches to find data, information and content in digital environments<br>• Explain how to access them and navigate between them<br>• Explain well-defined and routine personal search strategies |
| | Upper Intermediate | 4 | Independently, according to my own needs, and solving well-defined and non-routine problems, student can:<br>• Illustrate information needs<br>• Organize the searches of data, information and content in digital environments<br>• Describe how to access to these data, information and content, and navigate between them<br>• Organize personal search strategies |

# Competence Area 1: Information and data literacy >> 1.1 Browsing, searching and filtering data, information and digital content

| Proficiency | Levels | | Criteria |
|---|---|---|---|
| Proficient/ Advanced | Pre-advanced | 5 | As well as guiding others, student can:<br>• Carry out an evaluation of the credibility and reliability of different sources of data, information and digital content<br>• Carry out an evaluation of different data, information and digital content |
| | Advanced | 6 | At advanced level, according to needs and those of others, and in complex contexts, student can:<br>• Critically assess the credibility and reliability of sources of data, information and digital content<br>• Critically assess data, information and digital content |

# Competence Area 1: Information and data literacy >> 1.1 Browsing, searching and filtering data, information and digital content

| Proficiency | Levels | | Criteria |
|---|---|---|---|
| Specialized | Specialized | 7 | At a specialized level, student can:<br>• Create solutions to complex problems with limited definition that are related to analyzing and evaluating credible and reliable sources of data, information and content in digital environments<br>• Integrate knowledge to contribute to professional practices and knowledge and to guide others in the analysis and evaluation of the credibility and reliability of data, information and digital content and their sources |
| | Highly Specialized | 8 | At the most advanced and specialized level, student can:<br>• Create solutions to solve complex problems with many interacting factors that are related to analyzing and evaluating credible and reliable sources of data, information and content in digital environments<br>• Propose new ideas and processes to the field |

# Competence Area - Example

| Competence area | Competence measured | Level | Criteria |
|---|---|---|---|
| #1<br><br>Communication and Collaboration | 1.1<br><br>Browsing, searching and filtering data, information and digital content | 1<br><br>Starter | At basic level and with guidance, student can:<br>• Identify information needs<br>• Find data, information and content through a simple search in digital environments<br>• Find how to access these data, information and content and navigate between them<br>• Identify simple personal search strategies |

# Example of Use

| Learning Scenario | Application |
|---|---|
| Prepare a short report on a specific topic. | Identify websites, blogs and digital databases from a list in a digital textbook to look for literature on the report topic. |
| | Identify literature on the report topic in these websites, blogs and digital databases, and access and navigate among them. |
| | Using a list of generic keywords and tags available in a digital textbook, also identify those which would be useful for finding literature on the report topic. |

# Competence Area - Example

| Competence area | Competence measured | Level | Criteria |
|---|---|---|---|
| #2<br><br>Communication and Collaboration | 2.5<br><br>Netiquette | 7<br><br>Specialized | At a specialized level, student can:<br>• Create solutions to complex problems with limited definition that are related to digital etiquettes respectful to different audiences and cultural and generational diversity.<br>• Integrate knowledge to contribute to professional practice and knowledge and guide others in digital etiquette. |

# Example of Use

| Learning Scenario | Application |
|---|---|
| Prepare group work with classmates | Solve problems of etiquette that arise with classmates while using a digital collaborative platform (blog, wiki, etc.) for group work (e.g. classmates criticizing each other). |
| | Create rules for appropriate behavior while working online as a group which can be used and shared in the school's digital learning environment. |
| | Guide classmates as to what constitutes appropriate digital behavior while working with others on a digital platform. |

# Competence Area - Example

| Competence area | Competence measured | Level | Criteria |
|---|---|---|---|
| #3<br><br>Digital content creation | 3.3<br><br>Copyright and licenses | 3<br><br>Intermediate | Independent and solving straightforward problems, student can:<br>• Indicate well-defined and routine rules of copyright and licenses that apply to data, digital information and content. |

# Example of Use

| Learning Scenario | Application |
| --- | --- |
| Prepare a presentation on a certain topic that will be presented to classmates | Explain to a friend which image banks usually used to find images that can be downloaded completely free of charge to create a digital animation to present work to classmates. |
| | Fix problems such as identifying the symbol that indicate that an image is copyrighted and therefore cannot be used without the author's permission. |

# Competence Area - Example

| Competence area | Competence measured | Level | Criteria |
|---|---|---|---|
| #4<br><br>Safety | 4.1<br><br>Protecting devices | 5<br><br>Pre-advanced | As well as guiding others, student can:<br>• Apply different ways to protect devices and digital content.<br>• Differentiate a variety of risks and threats in digital environments.<br>• Apply safety and security measures.<br>• Employ different ways to have due regard to reliability and privacy. |

# Example of Use

| Learning Scenario | Application |
|---|---|
| Use of the school's digital learning platform to share information on interested topics | Protect information, data and content on the school's digital learning platform (e.g. a strong password, control the recent logins). |
| | Detect different risks and threats when accessing school's digital platform and apply measures to avoid them (e.g. how to virus-check attachments before downloading). |
| | Help classmates to detect risks and threat while using the digital learning platform on their tablets (e.g. controlling who can access the files). |

# Competence Area - Example

| Competence area | Competence measured | Level | Criteria |
|---|---|---|---|
| #5<br><br>Problem solving | 5.4<br><br>Identifying digital competence gaps | 4<br><br>Upper Intermediate | Independently, according to needs, and solving well-defined and non-routine problems, student can:<br>• Discuss on where my digital competence needs to be improved or updated.<br>• Indicate how to support of others to develop digital competence.<br>• Indicate where to seek opportunities for self-development and to keep up-to-date with the digital evolution. |

# Example of Use

| Learning Scenario | Application |
|---|---|
| Use of a digital learning platform to improve my math skills | Discuss with a friend the digital competence needed to use the tools of a MOOC for studies in math. |
| | Show teacher where to find and use MOOCs according to student's learning needs. |
| | Tell the teacher which digital activities and pages surfed in order to keep personal digital competence updated so that student can profit the most from digital learning platforms for learning needs. |
| | Deal with any issue while doing activities, such as evaluate whether new digital environments that appear while surfing are appropriate for improving digital competence and getting the most profit from the MOOC. |

# Since students nowadays are digital natives..

# Integration into the Curriculum

- Reinforcement on the use of digital tools in academic outputs
- Foster collaborative work
- Encourage the use of online references for research
- Evaluate and include the use of MOOCs as additional credential for student improvement and learning
- Emphasize on ethical practices of using digital tools and materials through different means

# Graduation Requirement? Assessment

- Training
- Certification exam
  - ICDL
    - International Computer Driving License
  - IC3

IC3 DIGITAL LITERACY CERTIFICATION

| Area | Competence structure | Levels of advancement | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | A | B | C | A | B | C |
| **1. Information and Data Literacy** | 1.1. Browsing, searching and filtering data information and digital content | | | | | | | X | X | X |
| | 1.2. Evaluating data, information and digital content | | | | | | | X | X | X |
| | 1.3. Managing data, information and digital content | X | X | X | X | X | X | X | X | X |
| **2. Communication and Collaboration** | 2.1 Interacting through digital technologies | | | | | | | X | X | X |
| | 2.2 Sharing through digital technologies | | | | X | | | X | X | X |
| | 2.3 Engaging in citizenship through digital technologies | | | | | | | X | X | X |
| | 2.4. Collaborating through digital technologies | X | | | X | | | X | X | X |
| | 2.5 Netiquette | | | | | | | X | X | X |
| | 2.6. Managing digital identity | X | | | X | | | X | X | X |
| **3. Digital Content Creation** | 3.1. Developing digital content | X | X | X | X | X | X | X | X | X |
| | 3.2 Integrating and re-elaborating digital content | X | | | X | X | | X | X | |
| | 3.3 Copyright and licences | X | | | | | | X | X | X |
| | 3.4 Programming | X | | | X | | | X | X | |
| **4. Safety** | 4.1. Protecting devices | X | X | X | | | | X | X | X |
| | 4.2. Protecting personal data and privacy | X | | | | | | X | X | X |
| | 4.3 Protecting health and well-being | X | X | | | | | X | X | X |
| | 4.4. Protecting the environment | X | X | | | | | | | |
| **5. Problem Solving** | 5.1. Solving technical problems | X | X | X | | | | X | X | X |
| | 5.2 Identifying needs and technological responses | X | X | X | | | | X | X | X |
| | 5.3 Creatively using digital technologies | | | | X | X | | X | X | |
| | 5.4 Identifying digital competence gaps | X | X | X | X | X | | X | X | |

# Thank You So Much!

# Contact Details

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