The background features a light blue gradient with a network of white and light blue icons. These icons include a person in a suit, a bar chart, a document, a gear, a mouse, a person's head in a circle, a code editor with '</>' symbols, a pie chart, a location pin, a pencil, a smartphone, a cloud with a downward arrow, and various geometric shapes like circles and lines. The overall theme is digital technology and education.

PEDAGOGICAL GUIDE

DIGITAL COMPETENCY
FRAMEWORK

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THE *DIGITAL COMPETENCY FRAMEWORK*: AN OVERVIEW

On April 25, 2019, the Minister of Education and Higher Education, Jean-François Roberge, unveiled the *Digital Competency Framework*,¹ part of the Digital Action Plan for Education and Higher Education. The framework is one of the few action plan measures that spans multiple educational levels (preschool education through higher education, including general education for adults and vocational training) and is intended for learners, teachers and non-teaching professionals alike. The aim of the framework is to develop digital competency, which is defined as a set of skills necessary to the confident, critical and creative use of digital technologies to achieve objectives with regard to learning, work, leisure, and inclusion or participation in society.

The framework defines 12 key dimensions of learning and professional development in the 21st century—for learners as well as for teachers and non-teaching professionals. It represents the first measure in the Digital Action Plan for Education and Higher Education. As stated in the action plan, it is vital to support the development of learners' digital skills so that they can become “fully engaged in our changing society.”²

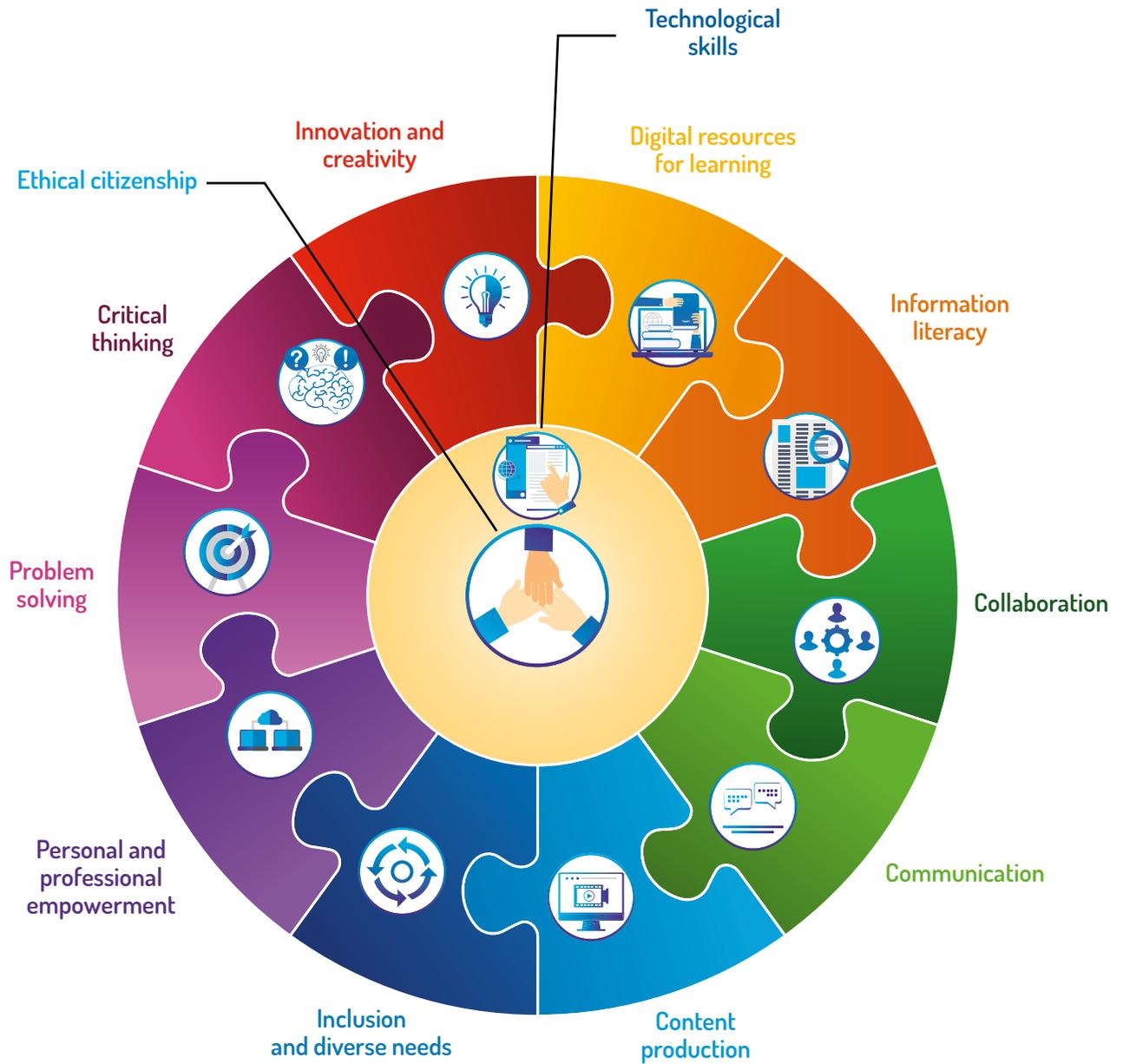
Each dimension is broken down into elements, and each element begins with an action verb and provides a more concrete understanding of the skills associated with that dimension. Together, the dimensions and elements have been designed to enable learners to become increasingly autonomous in their use of digital technology in educational or professional contexts as well as in everyday life.

The inter-level nature of the framework is critical. Regardless of the educational level or the sector, the framework provides the foundation for the development of learners' digital competency, placing constant emphasis on the importance of digital citizenship. However, the framework can also be adapted to the different educational levels or sectors.

¹ Québec, Ministère de l'Éducation et de l'Enseignement supérieur, *Digital Competency Framework* (2019). <http://www.education.gouv.qc.ca/en/current-initiatives/digital-action-plan/digital-competency-framework/>.

² Québec, Ministère de l'Éducation et de l'Enseignement supérieur, *Digital Action Plan for Education and Higher Education* (2018), 25. http://www.education.gouv.qc.ca/fileadmin/site_web/documents/ministere/PAN.Plan_action_VA.pdf.

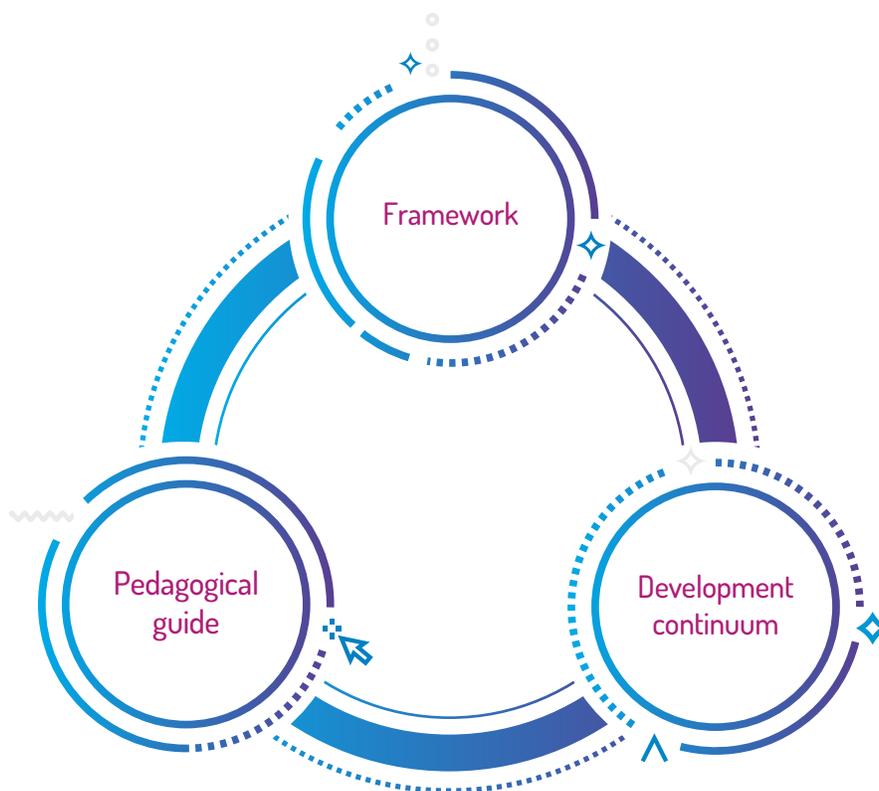
Figure 1: Visual representation of the *Digital Competency Framework*



THE ROLE OF THE PEDAGOGICAL GUIDE

Although the framework provides a global vision of digital competency by introducing a definition and guidelines, education and higher education stakeholders in Québec require further tools in order to develop this competency. To that end, two initial complementary tools have been produced: the pedagogical guide and the *Digital Competency Development Continuum*.

Figure 2 : Complementary nature of the three documents



The development continuum complements the framework by breaking down the elements of each dimension in terms of three levels of competency development: beginner, intermediate and advanced. The development continuum also presents each dimension in greater detail and situates the learner's digital competency on a scale, independent of the educational level. An abridged version of the development continuum has been appended to this guide.

The wording of the dimensions and elements in the continuum is such that it can be used to develop learning objectives for the pedagogical activities designed to develop digital competency. The wording also makes it possible for educators to enrich predetermined pedagogical aims by integrating one or more dimensions of digital competency into them.

The general objective of this guide is to help all education and higher education stakeholders undertake pedagogical planning or educational projects to develop digital competency. In other words, the sole purpose of this guide is to provide broad orientations to facilitate the creation of learning activities that incorporate one or more dimensions of the framework and target one of the development levels defined in the development continuum.

The guide is also designed to meet the need expressed by education and higher education stakeholders in Québec for broad orientations that would enable them to integrate digital competency into classroom activities and distance learning. The guide has been developed with all stakeholders in mind and, like the framework, is based on the principle of professional autonomy. In other words, educators and other education stakeholders will play a key role in selecting and adapting content to be covered with learners.

Thus, learners from across the Québec education system will be the indirect beneficiaries of this guide, as it will provide educators with the tools to integrate framework-related learning into a variety of meaningful pedagogical activities. Learners will be taught and supported in such a way as to enable them to develop their digital competency. This will allow them to become active, responsible citizens and to play a key role in the world of tomorrow.

THE FRAMEWORK AND THE DEVELOPMENT CONTINUUM: TOOLS FOR INTEGRATING DIGITAL COMPETENCY INTO TEACHING AND LEARNING PLANNING

Identifying the needs of learners, and determining their level of digital competency development

Once educators have familiarized themselves with the *Digital Competency Framework* and the *Digital Competency Development Continuum*, they are encouraged to determine learners' level of competency development for each of the 12 dimensions. For instance, educators may carry out diagnostic assessment activities to gather more information about learners and determine their level of development.³ This will allow them to establish which dimensions of the competency they should focus on and help them plan out learning activities. There are numerous possible options, depending on educators' pedagogical aims or the resources available to them. For example, based on their professional judgment and expertise, educators may determine the level of competency development by observing learners' behaviour or analyzing their work from previous activities.

In order to identify learners' needs, some educators may choose to request assistance from colleagues or to consult networks of professionals specialized in the pedagogical use of digital technology. Others may consult research papers or communities of practice. In some situations, it may be useful to ask learners how they perceive their level of competence or their sense of self-efficacy with respect to a given task in order to determine their level of development for the digital competency.

In such instances, educators may use the development continuum to create self-assessment grids with built-in criteria so learners can evaluate their own level of development for each dimension of digital competency.

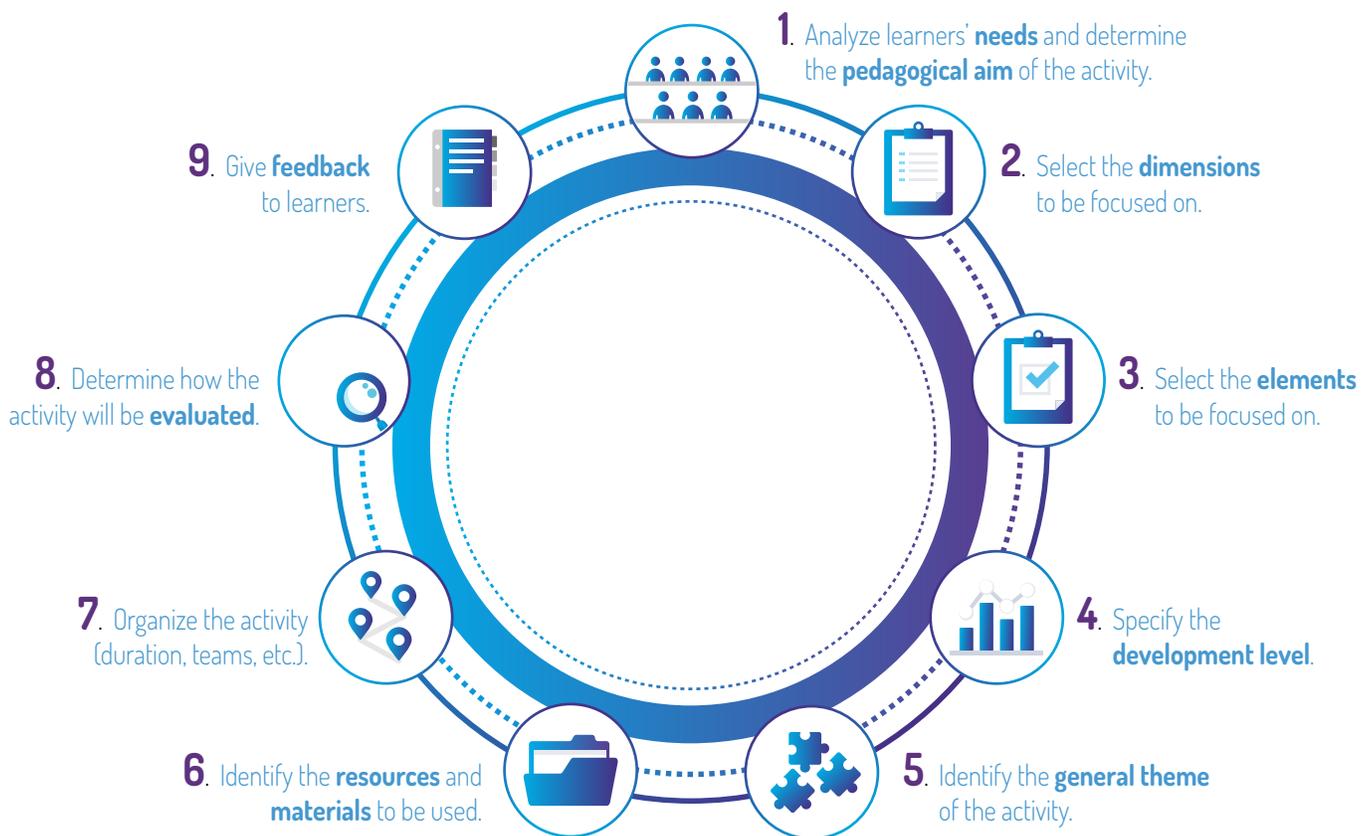
3 G ry Marcoux and S bastien B land, "Retour sur l' valuation diagnostique," *Mesure et  valuation en  ducation*, Vol. 39, No. 6 (2016): 97-103.

Using the development continuum to plan pedagogical activities

It is important to remember that, as specified in the framework, digital technologies are meant to be used in a cross-curricular manner in education, and integrated into every subject taught. Thus, a predetermined pedagogical aim may be enriched by incorporating one or more framework dimensions into it.

In some contexts, it may be useful or even necessary to integrate dimension-related learning into a variety of meaningful pedagogical activities. In order to do this, teachers may follow the nine key steps laid out in the graph below. A planning tool (template) has also been provided and may be used to integrate framework dimensions into meaningful pedagogical activities. Educators may also consult the links on the Ministère's website for concrete examples of activities for different educational levels.

Nine steps for planning an activity



Template for integrating digital competency into pedagogical activities

| TITLE: | | | | | | |
|---|---|---|--|---|---|--|
| STEP | DESCRIPTION | | | | | |
| Analyze needs and determine pedagogical aim | | | | | | |
| Main dimension(s) | <input type="checkbox"/> 1. Ethics | <input type="checkbox"/> 2. Technology | <input type="checkbox"/> 3. Learning | <input type="checkbox"/> 4. Information literacy | <input type="checkbox"/> 5. Collaboration | <input type="checkbox"/> 6. Communication |
| | <input type="checkbox"/> 7. Production | <input type="checkbox"/> 8. Inclusion | <input type="checkbox"/> 9. Personal and professional empowerment | <input type="checkbox"/> 10. Problem solving | <input type="checkbox"/> 11. Critical thinking | <input type="checkbox"/> 12. Innovation |
| Secondary dimension(s) <i>(optional)</i> | <input type="checkbox"/> 1. Ethics | <input type="checkbox"/> 2. Technology | <input type="checkbox"/> 3. Learning | <input type="checkbox"/> 4. Information literacy | <input type="checkbox"/> 5. Collaboration | <input type="checkbox"/> 6. Communication |
| | <input type="checkbox"/> 7. Production | <input type="checkbox"/> 8. Inclusion | <input type="checkbox"/> 9. Personal and professional empowerment | <input type="checkbox"/> 10. Problem solving | <input type="checkbox"/> 11. Critical thinking | <input type="checkbox"/> 12. Innovation |
| Element(s) | | | | | | |
| Targeted competency level | <input type="checkbox"/> Beginner | | <input type="checkbox"/> Intermediate | | <input type="checkbox"/> Advanced | |
| Theme | | | | | | |
| Resources | | | | | | |
| Activity breakdown | | | | | | |
| Evaluation | | | | | | |
| Feedback | | | | | | |



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