CSC - IT CENTER FOR SCIENCE LTD.

POSITION PAPER ON THE REVIEW OF THE 2006 FRAMEWORK OF KEY COMPETENCES FOR LIFELONG LEARNING

CSC – IT Center for Science Ltd. (CSC) as part of the Finnish research system develops, integrates and offers high-quality ICT services for research, education, culture, public administration and companies. Our services include HPC, data centers, data storage, curation and long-term preservation, data analytics, data publication, software development, research networks, and data interoperability services.

Summary: The European Commission emphasizes the importance of boosting digital skills and CSC supports this emphasis. CSC is pleased with regard to the importance placed on data and data competences within the European Digital Competence Framework for Citizens. However, CSC views that the digital competence definition and its related knowledge, skills and attitudes should be updated to be aligned with the European Digital Competence Framework for citizens in regards to more emphasis being placed on data competences.

General remarks

We are witnessing an enormous change in how both business and research are done, caused by exponentially growing volumes of data. This revolutionary phenomenon is similar to the birth of the Internet and all of its implications are not yet known. What we already know is that data is, for example, a crucial element in the creation of new business all over the world, and Europe is lagging behind in this development. It is therefore crucial, that the Key Competences Framework acknowledges and includes data competences within the definition as well as the related knowledge, skills and attitudes regarding digital competences. CSC suggests to place emphasis on the following issues:

1. Data and data analytics are essential for growth and innovation. Skills in data processing, analytics and data management are urgently needed in Europe: data skills education on all levels, across all scientific fields, and in workplaces. In addition, it should be acknowledged, that different types of data skills are required in different fields.

2. Importance should be placed on data skills education for teachers and educators - these are key actors and we need to ensure they have sufficient skills.

3. In order for Europe to be able to leverage on data skills, innovation based on data should be enabled. Thus, parallel initiatives such as the Data Economy[1], need to be coherent with the efforts of skills development, in order to avoid creating silos and new barriers.

4. The MyData[2] concept introduces the principle of human centric control, according to which individuals are empowered actors, not passive targets, in the management of their personal lives both online and offline. Thus, individuals have the right and practical means to manage their data and privacy. It is therefore important that individuals have the necessary skills to understand the value of data; how it is used and what are the individuals' rights in regards to their own data.

5. In order for Europe to acquire versatile and knowledgeable professionals to answer to the challenges of data processing, data science education should be introduced into a new application area in the form of data management and data processing education since, for example, skills in data management will inevitably enhance the findability and re-use of data.

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[1] Communication on Building a European Data Economy: https://ec.europa.eu/digital-single-market/en/news/communication-building-european-data-economy

[2] Report: MyData - A Nordic Model for human-centered personal data management and processing