

Chapter 27

Digital Competence: A Net of Literacies

Edith Avni

Toward Digital Ethics Initiative, Israel

Abraham Rotem

Toward Digital Ethics Initiative, Israel

ABSTRACT

This chapter presents a proposal for a conceptual framework of digital competence, which is a civil right and need and is vital for appropriate, intelligent study and functioning in the real world, through means that technology and the internet offer the citizen. Digital competence in the 2010s is a multifaceted complex of a net of literacies that have been updated, reformulated and transformed under the influence of technology. The framework of the digital competency includes eight fields of digital literacies. At the top of the net is digital ethics literacy, outlines the moral core for proper use of technology; at the base are technological literacy and digital reading and writing literacy, comprising the foundation and interface for all the digital literacies, and in between are the digital literacies in these fields: information literacy, digital visual literacy, new media literacy, communication and collaboration literacy and social media literacy. These interconnected literacies compose a synergetic complex of the digital competence framework.

INTRODUCTION

Digital competence (hereafter Dcom) is a right and necessity of humans and citizens, which is fundamental for proper, intelligent functioning in the real world in the 2010s with technological means.

ICT, which has become an almost inseparable part of every aspect of our lives, has vastly changed the ways we communicate, use language, information and knowledge, think and solve problems, work, consume, and relate to culture and leisure. As a result, the knowledge and skills required by every citizen, student and graduate of the education system for coping with daily needs, functioning optimally in society and the labor market, and surviving in the competitive world, have changed. Dcom also comprises a key

DOI: 10.4018/978-1-5225-3822-6.ch027

to suitable scholastic skills in the K-12 educational system as well as a basis for acquiring an education and for continual learning and developing throughout life.

Dcom is a complex, multifaceted capability of a complex of traditional, familiar literacies that technology has tinted with digital features, reshaping the current character of literacies and adding new skills that were nonexistent in the pre-digital age. These digital literacies include knowledge, performance skills and high-level thinking skills, viewpoints, and values, for which the common denominator is intelligent, efficient application by digital means and on the internet, in accordance with the needs of the student and citizen in the 2010s.

Dcom refers to almost every aspect of modern human functioning, the intrapersonal aspects alongside the interpersonal ones (Pellegrino & Hilton, 2012). In each of the literacies, functioning moves along a continuum of personal and collective-social context, in which one can discern the rising trend of shared-social use on the timeline. The abilities emphasizing more personal functioning are primarily the technological literacies: digital reading and writing, information and visual literacies. The abilities emphasizing more shared-social functioning are the communication and collaboration, new media, and social media literacies.

The importance of digital competence to digital citizenry as an answer to society's contemporary needs, the business world, and the educational realm, raises the need for modernized conceptualization of its framework. Over the years, corresponding to the incorporation of ICT and socialization in routine life, a variety of digital abilities have been characterized and conceptualized that have focused primarily on technological starting-off points; while the essence of abilities required by the student and citizen are based on traditional literacies that have been refashioned in the technological context. Limitations of these former conceptualizations include focusing on narrower aspects rather than the broad, comprehensive complex of required skills, as well as focusing on technology itself without sufficiently dealing with appropriate, astute implementation for the benefit of humanity and society. Because of the rapid development of technological means, these limitations have led to considerable difficulty in updating required skills in accordance with lifestyle in the digital age.

The conceptual framework proposed here has been constructed with the understanding that digital competence and scholastic qualifications have become integrated, interwoven, imminent essences. In effect, there is *no meaning or relevance today* to learning skills that stand alone outside the context of technology. For the past decade many countries have seen the necessity of giving priority to providing their young learners and older citizens with a digital competence. Initiatives for encouraging digital literacy have been increasing, among them government bodies in the United States (National Telecommunications and Information Administration, 2014) and education committee (The European Commission, 2014), Measuring Digital Skills across the EU (2014) and located at aspects of schools, education systems, and teaching associated (Fraillon, 2014). One such outstanding project is Education 2020 (Cross, Hamilton, Plested, & Rez, 2013), an initiative for young learners, which has been adopted by many countries in the belief that educational systems should not only accept necessary changes but should lead as an ecological and synergetic system, in conjunction with communities and study networks.

The goal of constructing a conceptual framework of updated, digital competence for the 2010s is to analyze and present the essence, terms and content of the abilities needed for complex, multifaceted literacy functioning in the digital age. Such a defined, comprehensive framework will aid in raising public and educational awareness of the topic. We can achieve this by using clear anchors, a common, agreed-upon language and better understanding of the fundamental principles to serve the public and educational discourse with all the relevant factors and components of knowledge literacy, which com-

28 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/digital-competence/189491

Related Content

Fostering Character Education with Games and Interactive Story Generation

Rania Hodhod, Paul Cairns and Daniel Kudenko (2011). *Designing Games for Ethics: Models, Techniques and Frameworks* (pp. 208-233).

www.irma-international.org/chapter/fostering-character-education-games-interactive/50741

Analysis and Modeling of H.264 Unconstrained VBR Video Traffic

Harilaos Koumaras, Charalampos Skianis and Anastasios Kourtis (2011). *Innovations in Mobile Multimedia Communications and Applications: New Technologies* (pp. 227-243).

www.irma-international.org/chapter/analysis-modeling-264-unconstrained-vbr/53181

Videagogy: Using Humor and Videos to Enhance Student Learning

Peter M. Jonas and Darnell J. Bradley (2013). *Enhancing Instruction with Visual Media: Utilizing Video and Lecture Capture* (pp. 138-147).

www.irma-international.org/chapter/videagogy-using-humor-videos-enhance/75418

Multi-Label Classification Method for Multimedia Tagging

Aiysha Ma, Ishwar Sethi and Nilesch Patel (2010). *International Journal of Multimedia Data Engineering and Management* (pp. 57-75).

www.irma-international.org/article/multi-label-classification-method-multimedia/45755

A Web-Based Multimedia Retrieval System with MCA-Based Filtering and Subspace-Based Learning Algorithms

Chao Chen, Tao Meng and Lin Lin (2013). *International Journal of Multimedia Data Engineering and Management* (pp. 13-45).

www.irma-international.org/article/a-web-based-multimedia-retrieval-system-with-mca-based-filtering-and-subspace-based-learning-algorithms/84023