

## Towards a comprehensive definition of digital skills

By Ismael Peña-López ([@ictlogist](#)), 17 March 2009

Digital literacy (or digital literacies), e-skills, e-competences, skills for the Information Society, etc. There is [plenty of literature about digital literacy](#) in a broad sense. And there are even as many names as words to describe concepts, similar one to each other, but with shades and subtleties that make them have yet different meanings.

In my opinion, two problems are both the cause and the consequence of this lack of understanding, closely bound one to the other one.

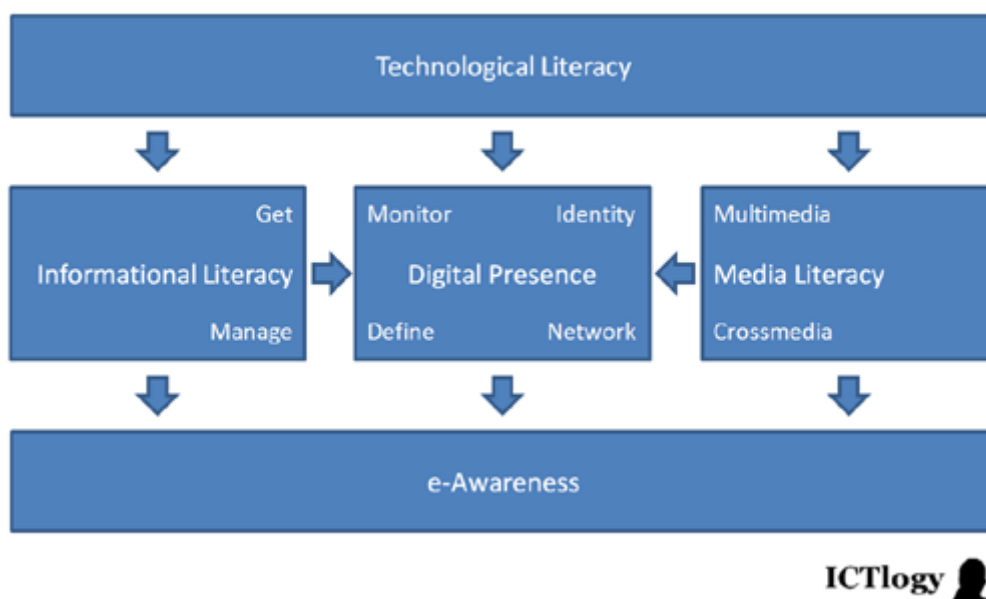
The first one is that, most usually, **digital skills are looked at at a very micro level**. For instance, the most instrumental digital literacy (i.e. technological literacy) can be described without taking into account informational literacy, personal knowledge management, the sociocultural framework and so.

The second one is that, almost always, **digital skills are not taken dynamically**, but as a pretty static, closed black box. Take media literacy as an example, where a (for me) necessary corollary to the acquisition and mastering of instrumental multimedia skills should be followed by reflections on the change of the Fourth Estate, the rise of the [Fifth Estate](#) and so.

Actually, it is especially this last part, the dynamics of digital literacy and its actual application to everyday life — education, work, leisure, politics, social engagement — the most interesting to me and, to my knowledge, the most unattended one.

Had I to picture such dynamics, I would do it this way:

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Where concepts are:

- **Technological Literacy:** the skills to interact with hardware and software
- **Informational Literacy:** the competences to deal with information, normally by means of ICTs (applying Technological Literacy). We could draw here two stages: a more instrumental one, related on how to **get** (relevant) information, and a more strategic one related to how to **manage** that information (or knowledge, if we speak of personal knowledge management)
- **Media Literacy:** skills and competences to deal with several media, make them interact and integrate them in a single output. I believe we could also draw a lower level, **multimedia**, where interaction would be more mechanical, and a higher one, **crossmedia**, where interaction and integration respond not to technical possibilities but to a strategic design, building an ecosystem of different media (and not a simple multimedia output)
- **Digital Presence:** Is centred in the person. These are the digital skills to **monitor** and establish a digital **identity**, and the skills to actively **define** it and use it for **networking** or interacting with other people digitally
- **e-Awareness:** the most strategic (even philosophical) stage is the one related with being aware on how the world and our position — as a person, group, firm, institution — varies because of digital technologies

These concepts can be rephrased as:

- **Technological Literacy:** HOW
- **Informational Literacy:** WHAT
- **Media Literacy:** WHERE
- **Digital Presence:** WHO
- **e-Awareness:** WHY

Some examples on what these digital skills and competences mean in everyday life are as follows:

**Application of comprehensive digital skills in everyday life**

	School	Work	Government	Citizen
Technological Literacy	<ul style="list-style-type: none"> <li>▪ Acquisition</li> <li>▪ Evaluation</li> </ul>			
Informational Literacy	<ul style="list-style-type: none"> <li>▪ Acquisition</li> <li>▪ Evaluation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Life-long learning</li> </ul>		<ul style="list-style-type: none"> <li>▪ Empowerment</li> </ul>
Media Literacy	<ul style="list-style-type: none"> <li>▪ Acquisition</li> <li>▪ Evaluation</li> </ul>		<ul style="list-style-type: none"> <li>▪ 4<sup>th</sup> &amp; 5<sup>th</sup> Estates</li> <li>▪ Open government</li> <li>▪ Goverati</li> </ul>	<ul style="list-style-type: none"> <li>▪ Empowerment</li> <li>▪ User Generated Content</li> </ul>
Digital Presence	<ul style="list-style-type: none"> <li>▪ e-Portfolios &amp; PLE</li> </ul>	<ul style="list-style-type: none"> <li>▪ Networking</li> <li>▪ e-Portfolios</li> </ul>	<ul style="list-style-type: none"> <li>▪ Transparency &amp; Accountability</li> <li>▪ Participation</li> </ul>	<ul style="list-style-type: none"> <li>▪ Identity</li> <li>▪ Socialization</li> </ul>
e-Awareness		<ul style="list-style-type: none"> <li>▪ Business models</li> <li>▪ Self-programming</li> <li>▪ Connected worker</li> </ul>	<ul style="list-style-type: none"> <li>▪ Participation</li> <li>▪ Connected institution</li> </ul>	<ul style="list-style-type: none"> <li>▪ Privacy &amp; Security</li> <li>▪ Participation</li> <li>▪ Connected citizen</li> </ul>

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The approach above is completely exploratory and fails to be complete. It is, though, a reflection of what I sense is happening at the applied level, when sometimes too much conceptual figures have to be put to work at home, in the school, at work or social and political engagement. In other words, how do we put the tools — and problems, and questions — of the Information Society in the hands of leaders, decision-takers and policy-makers.

We need not static frames, but dynamic paths. From 0 to 100. From the simplest needs to the deepest understanding. And build bridges amongst them stages.

**Update:**

This theoretical framework has been later on developed in Peña-López, I. (2010). *[From laptops to competences: bridging the digital divide in higher education](#)*. In *Revista de Universidad y Sociedad del Conocimiento (RUSC), Monograph: Framing the Digital Divide in Higher Education*, 7 (1). Barcelona: UOC.