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Building digital identity in a learning environment

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Abstract

The aim of this work is to conduct a conceptual approach to the social profile of learning and to the learning digital identity on the road to the contribution of these constructs in the practice of evaluation. We describe the instrument created to determine the digital identity of learning of students in the University Master Degree in Multidisciplinary Computer Science at the University of Alcalá de Henares, and its application to identify the student in the development of their learning. The design and implementation reflect the need to individualize each student in a digital environment to control their ethical behaviour and have information about the development of competencies that are necessary to perform effectively as online students, and make appropriate pedagogical mediations. The paper concludes with considerations on the need to define quality indicators to ensure the inclusion of this perspective on systems and virtual learning environments.

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1. Digital Identity and Learning Profile

Virtual training and the problems associated with curricular dimensions have a horizon for training-elaboration much faster and urgent than those of the corresponding dimensions in conventional environments. How to intervene pedagogically, methodology and teaching strategies, assessment and organization of activities and resources have been developed for thousands of years. But the tradition of these issues in the network is counted in years, if not months.

In this sense, the accreditation of identity as a an element in evaluation is an undeniable urgency. Several concepts have been defined on the path to the conceptual construction of individual identity of
learning in the network and of the procedures to be used in teaching. In this way we present the work done in the context of courses of studies in the University Master Degree at University of Alcala de Henares (UAH). We depart from two conceptualizations: The social profile of learning and digital identity.

Elsewhere (Zapata, 2011) we tackle the social profile of student learning. The use of personal computer tools combined with social networking and guided by the student's metacognitive strategies (selection, organization and development based on their experience, objectives, expectations, and other characteristics of their learning profile) are the basis of an individualization or customization of his learning environment on the web. The characteristics of this environment are their trace-learning profile on the web.

The power of social networks to build this space and this profile, to access to teachers and researchers in their subject and their favorite weblogs are personal, but also implies something that already existed before: access to a wide range of resources as links to websites, articles, reference books, etc. It is just that now this means continuous access to references in the field, and some references about interests, and some personal features. This represents an alternative to linear search of resources on the web or digital libraries. In this case everyone using the same search engine has the same set of materials (all the more Google will offer a customized search, but with little difference). We teachers know about this when we assign a task and students -without agreeing among themselves- give us a very similar product. However, with the CONTINUOUS use of social software, different students do not have the same input settings to Web resources. Their development will be different, personal and with its own meaning. This is the key feature of social software, its contribution to the social profile of learning of each student.

On the other hand, it is a fact that now we have come upon an independent being on the Web. We are on the network, we can create and participate in communities of individuals with a common interest. We can speak our minds with our own posts, documents, images, sounds, videos and multimedia products. We can tell who we want or who wants to listen to our interests, expectations, tastes and ideas. Likewise, we can select the resources that we consider most useful for our training. We can produce this information with our own character, edit or add those of others. This identity makes sense as long as we receive feedback from the community. Identity exists, thus, because as we relate to others and accepted as such by them. For Wenger (2001, p. 187) there is a profound connection between identity and practice. Developing a practice requires the formation of a community whose members can engage each other and thereby recognize each other as participants.

A digital identity is thus the representation through a set of features of the identity of an individual that is used in some processes of interaction with others in distributed networks for recognition of the individual.

According to Windley (2005) identity is defined as collections of data about a subject that represent their traits, preferences and attributes. Thus, it is possible to know who we are or what our credentials (attributes of that identity) are. In this sense, a digital identity is the representation of learning through a set of visible features in an instructional context, the real identity of an individual processes are developed in interaction with others in distributed networks, and is susceptible of being used in the practice of instructional design and educational assessment processes.

In any case (Huynh, 2012), although it has a long way to go, no expert can deny that digital identity is changing the way of building the self-image of young people. It is therefore essential that school offers means to assess through this image under construction, or taking it into account. The distinction between private space and public space, data protection, e-reputation are factors to consider, deleting certain boundary between the personal and the public.

2. A Case of Digital Identity of Learning
The course Information and Knowledge Society (SIC-Sociedad de la Información y el Conocimiento in Spanish) is part of the Master Degree in Multidisciplinary Computing offered by the School of Computer Engineering of the University of Alcalá de Henares. It is on-line through the virtual campus of the university.

Since it is the first subject in the course of studies, its dynamics is of particular relevance as it imprints the development of the remaining subjects, as well as setting the parameters on what it means to study at a distance through electronic means, to act ethically, and to have a digital identity as a student, i.e. to be identified and distinguishable among others.

The course is divided into two distinct blocks, each one with its own methods and objectives. In the first block, we try to provide basic training for virtual learning, fostering the evaluation model of the Master Course. We try to provide for knowledge, methods and tools that enable students to acquire basic skills to work in the virtual classroom and to be evaluated through interventions and inputs through it, while allowing teachers to gain the necessary knowledge students to carry out a personalized assessment.

In the second block, we discuss the features and direction of the changes under way in all activities in its nature and its processes, which together are known as the Information and Knowledge Society. In this part, the objectives are equally common to all orientations of Master Course.

In particular, in the first block, as course objectives, we aim that by the end of the course the students are able to:

a.1 know, for the development of core competency "learning to learn", at least at the basic concepts and criteria for independent learning and the development of metacognitive strategies (those that increase the use of their own cognitive resources), and in particular on Problem Based Learning (PBL).

a.2 for training in virtual learning skills content and activities should be included that develop skills to:
1. Find, evaluate the quality and selection of information on the network.
2. Analyze, discuss, represent and interpret digital information.
3. Develop and structure of own production in digital format.
4. Know and apply the concepts of visibility, accessibility and standards, as well as citation standards in their own works.
5. Submit digital information using its own symbols and codes.
6. Acquire their own communication style in the context of a virtual learning community.
7. Build capacity to assess, and critical reflection on the impact of information technology and communication in the information and knowledge society.
8. Develop specific skills in team work within virtual environments.
9. Integrating the skills of planning and organization, and study skills and cooperative work in the specific environment of the virtual classroom.
10. Develop and manage projects in networked computers.
11. Know and use correctly the concepts and constructs related to spaces and tools in learning management environments (LMS and others).
12. Organize virtual study time.

b) Training in skills for networking and collaborative work.

For this training content and activities should develop students' abilities to:
1. Argue and agree on ideas and resolutions
2. Exchange ideas,
3. Learning to learn in group settings  
4. Make group decisions,  
5. Planning and organizing, based on rules developed collectively rather than preset rules  
6. Check and adjust the schedule.  
7. Find and manage information from asynchronous discussions. Organize the information obtained, and its processing, presentation, coordination of different ideas and opinions in an integrated joint proposal

c) Training in values (ethical ideas), legislation, meaning of plagiarism, citation.

Subjects and activities are carried out to enable students to:
1. Know and understand the ideas and systems of thought under the assumption that "plagiarism is” to rob the author and to trick the recipient of the plagiarized work.” It involving two interest groups: a) the interests of the author (and, where applicable, the holder of the rights of exploitation of the work, such as, for example, the publisher), b) the interests of the recipient of the work, who is trying to fool passing it off as their own.” (Cavanillas, 2008).
2. Know Spanish law and UAH (civil, administrative and academic) on plagiarism and academic fraud in general.  
3. Develop conceptual and value base to understand plagiarism as fraud in training and education. Develop social and group responsibility.

d) Promote situations and activities that enable teachers to meet personal traits, work style, personal and professional, implicit ideas, and others, of each student.

To achieve these objectives, highly interactive activities that promote discussion and debate should be prominent. But discussion and debate should not be trivial. They should be focused on specific aspects of interest motivations, personal goals in relation to the master and the specialty, and specific problems and cases from their work and their profession.

Naturally the aim with this type of training is that students acquire the skills and attitudes required for a smooth participation in this modality and to allow for the specific type of evaluation of the Master Course, typical in these environments. Another goal is to also enable accreditation and personalized assessment.

In seeking to identify the digital identity of learning of each student, we have designed an instrument which we have called of Personal Record for the Accreditation of Student’s Work, in which we collect data from the students for use in the assessment of skills and for the personal accreditation.

For each student, since the informal personal presentation at the forum that each students make and during the development of the subject, in each intervention we record information about:
• The orientation of the Master Course they have chosen (Electronic Teaching and Learning, Specialization in Audit, Law and Information Technology and Communications, Information Technology in Culture and Heritage, or Specialization in Information Technology for Health)
• The degree with which they were admitted  
• Their current work.  
• Personal circumstances  
• Entertainment / Leisure / Hobbies
• Features and characteristics of communication in forums and posts (Features outstanding written communication style, type of language used ("highly technical", "professional" or other, metaphors and idioms employed)
• Register on the training of students for virtual learning, group work, metacognition, and academic ethics (Evidence of developing skills for independent learning skills development for work in networks, for collaborative work, and incorporation and development of values (ethical ideas).

After the course, these records are available to all faculty in the course of studies in a classroom set up ad-hoc in the virtual campus where Master Course is hosted for all teachers to use as inputs to enable them to better adapt their actions towards students.

3. Conclusions

In learning systems mediated by technology, in their design, instruments and procedures should be included to build the digital identity of learning not only for the new dimensions social software give to learning processes, but also as an imperative to create and investigate new ways to recognize the new identity and inclusion in the accreditation procedures and evaluation.

Now the news is that the use of personal computer tools combined with social networking and abide by the student’s metacognitive strategies (selection, organization and development based on their experience, objectives, expectations, and other characteristics of their learning profile) is the basis of an individualization or customization of their learning environment on the web. The inclusion of these perspectives in terms of educational organization and instructional design is a new quality item which has to be evaluated as well.

The use of social web casts very interesting information relevant about the students. In this way we see and study each student performs a compilation, which is distinct, personal and with exclusive meaning to him. This is a key feature of social software, its contribution to the social profile of each student’s learning that can be used in accreditation. A first contribution may be the practical work with which we contribute.

References


