

Building Identity in an Institutionally Supported Personal Learning Environment - the case of SAPO Campus -

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Abstract. Social media is changing the way individuals learn, collaborate and express themselves, fostering the construction of an identity and reputation available to almost everyone. More than Curriculum Vitae, the construction of an online identity may reveal the sum of the learners' skills and experiences. Introducing online identity as a concept that reflects the path of the learner's personal, academic and professional lives, this paper presents the results of a case study developed at University of Aveiro, aiming to analyse how a group of thirteen students build identity in both open social online platforms and a platform provided by their Education Institution. Data was collected through in-depth interviews, questionnaires and observation. Although still in progress, the study revealed the presence of two different online identity profiles (context-driven and user driven online identities), and the student's awareness about their own online identity and reputation as learners and as professionals.

Keywords: online identity, SAPO Campus, Personal Learning Environments, Higher Education, digital environments

1 Introduction

Technology and social media changed the way individuals learn, collaborate and express themselves. More than a way to transmit information, the Internet became a platform where content is created and negotiated, fostering the development of communities that encourage and enhance the collaborative capabilities that already exist in individuals [1]. By emphasizing the contribution of the user in creating and organizing content and information, the web emerges as a place where knowledge is socially constructed and shared, reflecting a human and social dimension where networks of people, data and services grow towards a connective and innovative environment [2].

In a scenario strongly influenced by the presence of participatory media, students begin to think, work and enjoy themselves in ways different from the ones experienced by previous generations [3], engaging in a process where they can be responsible for their own learning. Learners have now the possibility and opportunity to move between different learning spaces and to interact with communities and environments, allowing learning and online presence to expand and take place in several spaces, no

longer bounded and controlled by institutions [4] [5]. As the network eases the connection and interaction between sources of knowledge, it also fosters the creation of an interconnected space where learners can access, share and build knowledge in ways that meet their learning goals and the needs and realities of the new global society [6] [7].

When it is almost impossible to remain outside the digital world and, therefore, outside the production of an online identity [8], the construction of a presence over the web (identifiable through participation and interaction) enables the learner to build a reputation on the network. Understood as a continuum [8], the construction of identity in digital environments encompasses authentication – the information that validates the individual’s identity in digital systems [9-11] – and content – information published by the individual in order to communicate and interact with the online environment. Either referred as digital (when related to authentication) or as online identity (when related to participation and content creation), the digital presence of individuals can be recognized in the publication of content [12-15]; in the creation of profiles [14] [16]; and in the typology of participation [17]. The network becomes an environment where learners are encouraged to build a presence and an identity that encompasses their personal and academic profile [15].

2 Building Identity in a Digital Learning Environment: a case study

When the economy of knowledge demands new learners and creators, the learner’s online identity may reveal the sum his/her experiences and skills, reflecting the path of his/her learning journey. More than a Curriculum Vitae, learner’s online identity may reveal to peers and to the wide community the sum of his/her experiences and skills, his/her ability to communicate, interact and share online. Whether in open social platforms (e.g. Facebook, Twitter, Google +), weblogs (e.g. Wordpress, blogger) and online forums, or in institutionally supported platforms (i.e. online spaces provided and supported by Education Institutions), learners are building an identity that arches over many spaces, evidencing their path as learners and professionals.

2.1 Background

In a knowledge economy where the learner’s abilities to search, evaluate, create and share information and synthesize knowledge are of vital importance [18], students look at schools as places that support the creation of learning communities, places where they can learn to learn, where creativity and innovation are cultivated [19] and where they develop learning abilities and new skills possible to be used throughout their life. No longer able to ignore the changes that social tools and new learning approaches have brought to the educational context (e.g. peer learning, connectivism, network knowledge), Higher Education Institutions (HEI) must be aware of the way students work, share and interact with each other in an interconnected and without frontiers world.

When skills as innovation, multidisciplinary, collaboration and problem solving are understood as core-competencies for the new realities and contexts, Universities

must look at their students as active promoters of its own quality, offering them the infrastructure and pedagogical approach they need in order to build a relevant curriculum and their own identity over the web.

Developed at the University of Aveiro (UA) - Portugal, SAPO Campus is an integrated Web 2.0 services platform based on user-generated content production and aggregation for use in HEI, offering its users – students, lecturers, staff – a technological infrastructure able to foster and promote the development of communication, sharing and collaboration skills, therefore contributing to more personal and relevant learning experiences. SAPO Campus is available to all the UA community since September 2009; blogs, wikis, photo and video sharing services are available and being used as a platform for communication, interaction and content sharing in both formal (educational) and informal (social) contexts, offering its users the space to enhance, in an institutional environment, their digital presence and reputation. Besides having a space where they can assemble and manage information (through a feed aggregator), in SAPO Campus registered members can create and share content, building and managing their online identity. Learners, staff and lecturers can use SAPO Campus social tools for communication and interaction, as well as to share content with the community. All content – published under a Creative Commons license – is visible not only to the UA members but to all the web community.

By providing its members a platform where they can build, manage and share content and information, SAPO Campus offers an institutionally supported online environment that encompasses the formal and informal dimensions of learning (more about the SAPO Campus project can be found at <http://campus.ua.sapo.pt>).

There is, however, a question: when the HEI – by presenting the aforementioned technological infrastructure and pedagogical approach – creates the conditions for the development of new ways of learning and building identity, are students comfortable in using the institutional scenario to meet their personal and individual learning goals and needs? When given the means, do students transfer their digital skills and identity to a formal institutional scenario?

While some studies reveal that students mix both general and institutional course tools to meet their personal and individual needs, using technologies to support every aspect of their study, suiting their own particular needs and harnessing the potential of the different technologies for their learning [20], others sustain that the gap between formal and informal environments remain, revealing the learner's difficulties when transferring digital skills from their everyday life to a formal (institutional) educational scenario [21].

2.2 The Case Study

In order to understand how students build, manage and perceive their identity in formal and informal environments, how they learn and reveal their skills, and how students, institutions and the employees perceive and value skills and competences that go beyond the curriculum (e.g. communication and collaboration skills, ethics, teamwork, creativity, online presence), a case study is being developed at the University of Aveiro - Portugal, focused on the analysis of the informal and institutional online presence of a group of thirteen students from two classes of a Master Degree Course (convenience sample, 13 students aged between 21 and 40

years, 7 male, 5 female).

Methodology. Data was collected through questionnaires, observation and in-depth interviews made to selected students.

In-depth interviews aimed to understand how they perceive their own online identity, how they handle content and address privacy and reputation issues, and how they reveal, through the identity they are building in formal and informal environments, the skills and competencies they acquired and developed. In order to achieve it, during the interviews students were asked to think and talk about the perception they have on their own online identity: the way they express themselves in online environments, how they manage their privacy and the professional, social and academic impact of the online identity they are building. Students were also asked about the advantages, disadvantages and impact of having an online identity built upon an institutionally supported platform (i.e. SAPO Campus).

Observation included the gathering and analysis of all posts (messages, pictures, links, video and audio files) published by participants in SAPO Campus and in informal online environments (i.e. Facebook and Twitter).

Data was gathered over two periods of nine months: from September 2009 to July 2010, and from September 2010 to July 2011, and a total of 3692 messages were analysed: 1249 Facebook posts, 2096 Twitter messages and 347 SAPO Campus posts. All posts were analysed according to content – personal, social, academic, professional or organizational – and to format (text message, picture, link, audio or video file). Content categories were based on [17] typology on online identity.

Personal content included: reference to family and/or friends; sharing emotional status; reference to sensitive issues. Social content included: content related to music or movies; status messages that do not reveal points of view or emotions. Academic content included: sharing content related to academic activity. Professional content included: content related to the professional activity; sharing interests and skills. And *organizational content* included: content with direct reference to the institution (academic or professional) and content published in the name of the institution.

Results. As data collected from the in-depth interviews was analysed and crossed with data collected from observation, it revealed the existence of two main online identity profiles: context driven and user-driven online identities.

Students with a context-driven online identity reveal special attentiveness when choosing and selecting the content they add to their online profile: *“I can’t afford to be misunderstood just because of a wrong opinion”*, *“none of the content is too personal, I try not to compromise myself”*.

Context-driven online identity includes two groups:

- a) Students who, although having an active online presence, are careful when writing and interacting online, selecting and publishing only content that they believe will not be misunderstood by the community. As they sustain not to use informal online environments to evidence their abilities and/or skills, they choose to support their online identity on social content, most of it text messages and audio/video files.

Students included in this group have as main concern the lack of control about who access and reads what they publish (what [16] refers to as “invisible audiences”). In order to control that access, they manage their identity in online spaces by selecting content according to the platform: social content in social platforms, academic content in formal/institutional online spaces. These students try not to share personal content, either in informal or formal online spaces.

Table 1. Context-driven online identity - content distribution (I)

| Online platform | Typology | Format | | | | Total | |
|-----------------|----------------|---------------|-------|-------------|--------|-------|-------|
| | | Text messages | Links | Audio/video | Photos | | |
| Facebook | Personal | 4 | 0 | 0 | 14 | 18 | 19.4% |
| | Social | 16 | 8 | 25 | 13 | 62 | 66.7% |
| | Academic | 0 | 3 | 2 | 0 | 5 | 5.4% |
| | Professional | 2 | 0 | 0 | 0 | 2 | 2% |
| | Organizational | 0 | 4 | 1 | 1 | 6 | 6.5% |
| Twitter | Personal | 8 | 2 | 0 | 0 | 10 | 2.7% |
| | Social | 1110 | 95 | 87 | 7 | 299 | 82.1% |
| | Academic | 10 | 20 | 4 | 3 | 37 | 10.2% |
| | Professional | 0 | 4 | 0 | 0 | 4 | 1.2% |
| | Organizational | 1 | 13 | 0 | 0 | 14 | 3.8% |
| SAPO Campus | Personal | 0 | 0 | 0 | 0 | 0 | 0% |
| | Social | 1 | 1 | 1 | 102 | 105 | 48.6% |
| | Academic | 49 | 22 | 10 | 30 | 111 | 51.4% |
| | Professional | 0 | 0 | 0 | 0 | 0 | 0% |
| | Organizational | 0 | 0 | 0 | 0 | 0 | 0% |

- b) Students that, being careful and selecting content according to the platform are using social and academic online spaces to build a professional profile and reputation. Their online presence includes information about their actual interests and occupations, their expectations and desires about their professional future, their skills and competences.

These students are trying to expand their area of influence and evidence themselves as professionals, and therefore tend to share content between platforms and to interact with experts of their field of interest. As they are trying to build a professional reputation over the network, their main concern (regarding privacy) focuses on the persistence of data and information; they are careful when publishing content and try to gain some control over the impact of their identity by selecting an managing their online contacts.

Table 2. Context-driven online identity - content distribution (II)

| Online platform | Typology | Format | | | | Total | |
|-----------------|----------|---------------|-------|-------------|--------|-------|------|
| | | Text messages | Links | Audio/video | Photos | | |
| Facebook | Personal | 2 | 0 | 2 | 2 | 6 | 0.8% |

| | | | | | | | |
|---------|----------------|----|-----|-----|----|-----|-------|
| | Social | 18 | 67 | 522 | 31 | 638 | 89.2% |
| | Academic | 1 | 4 | 1 | 0 | 6 | 0.8% |
| | Professional | 2 | 42 | 5 | 11 | 60 | 8.4% |
| | Organizational | 0 | 4 | 2 | 0 | 6 | 0.8% |
| Twitter | Personal | 1 | 0 | 0 | 1 | 2 | 0.5% |
| | Social | 76 | 143 | 98 | 19 | 336 | 79.4% |
| | Academic | 12 | 38 | 1 | 2 | 53 | 12.5% |
| | Professional | 0 | 7 | 0 | 0 | 7 | 1.7% |
| | Organizational | 2 | 21 | 2 | 0 | 25 | 5.9% |
| SAPO | Personal | 0 | 0 | 0 | 0 | 0 | 0% |
| Campus | Social | 5 | 0 | 0 | 0 | 5 | 6.3% |
| | Academic | 39 | 23 | 6 | 7 | 75 | 93.7% |
| | Professional | 0 | 0 | 0 | 0 | 0 | 0% |
| | Organizational | 0 | 0 | 0 | 0 | 0 | 0% |

User-driven online identity profile students, although being aware of the visibility and exposition of published content, claim to be building an identity that mirrors their real self, sharing content disregarding the social, academic or professional characteristics of the platform. As they claim to be comfortable in sharing “*whatever comes to mind*”, they publish information regardless of contextual constrains and guided only by their desire to share, being comfortable to address sensitive issues (e.g. political, ideological). These students adopt a more stress-free attitude towards the construction of their online identity, claiming “*not making a lot of drama about it*” and therefore making their online presence “*a mirror of the real world*”.

Table 3. User-driven online identity - content distribution

| Online platform | Typology | Format | | | | Total | |
|-----------------|----------------|---------------|-------|-------------|--------|-------|-------|
| | | Text messages | Links | Audio/video | Photos | | |
| Facebook | Personal | 48 | 5 | 1 | 15 | 69 | 15.7% |
| | Social | 40 | 110 | 127 | 42 | 319 | 72.5% |
| | Academic | 3 | 34 | 4 | 0 | 41 | 9.3% |
| | Professional | 0 | 1 | 2 | 0 | 3 | 0.7% |
| | Organizational | 0 | 7 | 0 | 1 | 8 | 1.8% |
| Twitter | Personal | 31 | 8 | 0 | 11 | 50 | 3.8% |
| | Social | 412 | 510 | 87 | 62 | 1071 | 81.8% |
| | Academic | 46 | 62 | 0 | 4 | 112 | 8.6% |
| | Professional | 26 | 16 | 3 | 2 | 47 | 3.6% |
| | Organizational | 3 | 25 | 1 | 0 | 29 | 2.2% |
| SAPO Campus | Personal | 0 | 0 | 0 | 0 | 0 | 0% |
| | Social | 0 | 0 | 2 | 6 | 8 | 15.7% |
| | Academic | 17 | 9 | 5 | 12 | 43 | 84.3% |
| | Professional | 0 | 0 | 0 | 0 | 0 | 0% |
| | Organizational | 0 | 0 | 0 | 0 | 0 | 0% |

Although adopting different approaches to their own online identity, student from both online identity profiles revealed to be more comfortable in using open social platform to share content about themselves and their interests, which may explain why

the SAPO Campus platform was mostly used to display and share work related to academic projects and achievements.

Regarding the importance of the institutional platform, students from both groups mentioned the visibility and exposure of content, the harnessing of the institution's reputation and the credibility as main benefits of sharing and publishing their work on the SAPO Campus platform. Interviewed students also reveal an awareness regarding the Higher Education Institution corporate image:

"I imagine that someone from the outside, as it [the platform] is related with the University, that people come and see, they look for information, they would see there [in SAPO Campus] an example of what it is being done here, and I don't want to, I am careful not to mess the University's good name with something I published."

From their perspective, by adopting an institutional platform to share their work and interact with others, they are blending their online identity with the institution's one, leading to a situation that can be valuable for both sides: as students, they may benefit from the HEI reputation and credibility; and the Institution may benefit from the quality of the content produced and shared by students.

In this scenario, students would act as prescribers of the HEI own quality, presenting to the community the work that is being developed inside walls: *"If the University has prestige their students feel somehow responsible for being related to a prestigious University, therefore they will want to have a prestigious work."*

3 Discussion of the Results

Although still in progress, preliminary data revealed that students are adopting the institutionally supported platform to meet and support their learning needs, gathering and sharing content related to their academic path and activities.

The analysis of data collected through interviews and observation point out that, when compared to informal environments – where participation is more intensive but more informal/social and mainly composed by music videos and links to other pages – students are building a more formal and conscious online presence in SAPO Campus, sharing content related to their academic activities and pre-editing the content they want to share.

Data analysis revealed that both context-driven and user-driven online identity profile students' adopt the institutionally supported platform to build a presence based on academic content. In the context-driven online identity profile, 63% of all content published on SAPO Campus was coded as "academic", mainly text messages - posts. In the user-driven online identity profile, 84,3% of the 51 posts, photos and videos published on SAPO Campus was coded in the same category.

In SAPO Campus, most of the content is academic related and, in order to increase the visibility and exposure of published content, often shared to informal platforms (Twitter and Facebook). Collected data also reveals that SAPO Campus users tend to value the feeling of security provided by customisable institutionally supported technologies, as well as the possibility of building an online presence in a platform associated to their HEI, where they can share their work and thoughts to both the academic and present/future employers in a more visible way.

4 Conclusions

As active producers of online content, students are building an identity available and accessible to almost everyone, designing a path that blends their personal, academic and professional lives and experiences. More than a curriculum vitae, their online identity may reveal to peers, to the community and to the market the sum of their experiences, their skills, their ability to communicate, interact and share online.

In a highly competitive setting such as the labour market, people should be conscious of the importance of the digital dimension of their lives; HEI, in turn, must be aware and concerned about the development of these new competences and look at its members as active participants and engaged learners.

Although still in progress, the case study introduced in this paper may be useful in understanding how students learn and build their online identity in a social platform provided by the HEI they choose as students. The analysis of the data collected through observation and content analysis revealed that students are, in fact, aware of their own online identity, as well as of the relevance of building a solid and truthful online reputation as learners and as professionals.

It is our belief that in the new connected world, the study and comprehension about how identity is built and displayed in online environments may be the basis for the construction of a more responsible, conscious and truthful reputation, fostering the creation of more valuable and well-prepared learners. For that reason, this paper may contribute to understand and rethink on how the academic community is using an institutionally supported online platform not only to achieve their learning goals but also to express their identity as learners, creators and professionals.

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References

1. Hargadon, S.: Long-handled spoons and collaborative technologies, retrieved from <http://www.stevchargadon.com/2009/02/long-handled-spoons-and-collaborative.html> (retrieved 23 January 2011), [blog post] (2009, February 13)
2. Bryant, L.: Emerging trends in social software for education, *Emerging Technologies for Learning*, (2), 9-17, available: http://partners.becta.org.uk/page_documents/research/emerging_technologies07_chapter1.pdf [accessed 12 January 2011]. (2007)
3. Solomon, G., Schrum, L.: *Web 2.0 – new tools, new schools*, Washington, DC: International Society for Technology in Education (ISTE), (2007)
4. Warburton, S.: Mapping online identity challenges at rhizome project. retrieved from

- <http://digitaldisruptions.org/rhizome/2008/10/26/mapping-online-identity-challenges/> (retrieved November 4, 2010) [weblog message] (2008, October 26)
5. Santos, C.: SAPO Campus – Plataforma Integrada de Serviços Web 2.0 para Educação. In: Proc. VI Conferência Internacional de TIC na Educação: Challenges 2009, University of Minho-Braga, 34-48 (2009)
 6. Atkins, D. E.: University futures and new technologies: Possibilities and issues (unpublished).
 7. Redecker, C., Ala-Mutka, K., Y. Punie, Y.: European Commission, Learning 2.0 - the impact of social media on learning in Europe, 13 (2010)
 8. Warburton, S.: Out of control? Managing our digital reputations, retrieved from http://www.slideshare.net/stevenw/out-of-control-managing-our-digital-reputations?from=share_email_logout2 (retrieved June 21, 2011) [Slideshare file] (2009)
 9. Boyd, D.: Faceted id/entity: Managing representation in a digital world, Master of Science in Media Arts and Sciences, Massachusetts Institute of Technology, Massachusetts (2002)
 10. Clement, A.: Digital identity constructions, Proposal: INE Research Grants Program of the Social Sciences and Humanities Research Council (SSHRC) (2002)
 11. McAlpine, M.: E-portfolios and digital identity: Some issues for discussion. In: E-Learning, Vol 2 (2005)
 12. Coiro, J., Knobel, M. Lankshear C., Leu, D.: Central issues in new literacies and new literacies research. In J. Coiro, M. Knobel, C. Lankshear, D. Leu (eds.), Handbook of research on new literacies, 1–21, New York: Lawrence Erlbaum (2008)
 13. Zhao, S. Grasmuck, S., Martin, J.: Identity construction on facebook: Digital empowerment in anchored relationships. In: Computers in Human Behavior, Vol 24, number 5, 1816-1836 (2008)
 14. Greenhow, C., Robelia, B., Hughes, J.: Learning, teaching, and scholarship in a digital age, in Educational Researcher, vol 38, number 4, 246-259 (2009)
 15. Costa C., Torres, R.: To be or not to be, the importance of digital identity in the networked society. In: Educação, Formação e Tecnologia, special issue, 47-53 (2011)
 16. Boyd, D.: Why youth <3 social network sites: The role of networked publics in teenage social life. In D. Buckingham (eds), Youth, Identity, and Digital Media, 119-142, Cambridge, MA (2008)
 17. Fraser, J.: Personal - Professional - Organisational: three basic online identities. retrieved from <http://fraser.typepad.com/socialtech/2009/07/personal-professional-organisational-three-basic-online-identities.html> (retrieved November 12, 2010) [weblog message] (2009, June 20)
 18. Margaryan, A., Nicol, D., Littlejohn, A., Trinder, K.: Students' use of technologies to support formal and informal learning. In: Proceedings of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2008 (pp. 4257-4266) (2008)
 19. Anderson, P.: What is Web 2.0? Ideas, technologies and implication for education. Available: <http://www.jisc.ac.uk/media/documents/techwatch/tsw0701b.pdf> [accessed 1 February 2011]. (2007)
 20. Conole, G., de Laat, M., Dillon, T., Darby, J.: JISC LXP Student experiences of technologies Final report. Joint Information Systems Committee. (2006)
 21. Miller, K., Smith, J., Carmichael, J., Edwards R.: Researching literacy for learning in the vocational curriculum. In Osborne M. et al (eds) Researching lifelong learning and teaching, London: Routledge. (2007).