Article

Characterization of the Digital Identity of Chilean University Students Considering Their Personal Learning Environments

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Abstract: At present, our online activity is almost constant, either producing information or consuming it, both for the social and academic fields. The spaces in which people move and travel every day, innocently divided between the face-to-face and the virtual, affect the way we communicate and perceive ourselves. In this document, a characterization of the academic digital identity of Chilean university students is proposed and an invitation to teachers to redefine learning spaces is made, allowing integrating all those technological tools that the student actually uses. This study was developed within the logic of pragmatism based on mixed methodology, non-experimental design, and a descriptive–quantitative cross-sectional approach. A non-probabilistic sample was made up of 509 students, who participated voluntarily with an online questionnaire. The Stata Version-14 program was used, applying the Mann–Whitney–Wilcoxon and Kruskal–Wallis U tests. To develop characterizations, a conglomerate analysis was performed with a hierarchical dissociative method. In general, Chilean university students are highly truthful on the Internet without making significant differences between face-to-face and digital interactions, with low awareness of their ID, being easily recognizable on the Web. Regarding their educational process, they manage it with analogical/face-to-face mixing formal and informal technological tools to optimize their learning process. These students manifest a hybrid academic digital identity, without gender difference in the deployment of their PLEs, but maintaining stereotypical gender behaviors in the construction of their digital identity on the Web, which shows a human-technological development similar to that of young Asians and Europeans.

Keywords: digital identity; PLE; awareness of digital identity; academic digital identity; stereotypical behaviors

1. Introduction

Technological advancement and digitization have been impacting humans for several years now. The impact was increased with the 2019 pandemic, which suggested that universities should inevitably align their work with information and communication technologies (ICT). This process had already been affecting teaching and how students were immersed within the globalized and hyper-connected scenario of which they are or should be part [1,2].

By existing and interacting on the Internet, the person uses tools and services that leave a series of fingerprints that will accompany them permanently [3–5]. This will affect both the configuration of the architecture of his/her learning environment, as well as the

digital identity (ID) [6,7]. Our students do not escape this reality, where their technological behavior and their digital identity say a lot about themselves and the way they learn [7–10]. That is how "A generally held assumption of late modernity suggests that identity matters more now because we have more choice" [8] (p. 3).

In this document, a characterization of the displayed and manifest academic digital identity of a group of university students in Chile is proposed. This, to collect information that allows knowing the technological behavior and digital identity that must be considered as key information when integrating ICT in the educational process.

The remainder of this document is divided into: Section 2, where papers that introduce the key constructs addressed in the study are reviewed. In Section 3 the materials and method used in the investigation are presented. In Section 4 the main results are discussed, which are compared with other investigations in Section 5. Finally, in Section 6 the conclusions are summarized.

2. Related Work

In this section, the theoretical perspectives related to DI, PLE and the way in which both are articulated in the educational process are presented. The objective is to allow the reader to understand the comprehensive view with which they were merged in the research.

2.1. Digital Identity

Lexicologically, the Dictionary of the Spanish language defines identity as "the set of distinctive characteristics of an individual or community that characterizes them in front of others". If the digital identity is extrapolated, it is not far from the identity definition. The Ministry of Education and Vocational Training of Spain explains that "Digital identity is the set of characteristics that identify us within the Network" [3] (p. 50).

Terminologically, digital identity (DI) can have multiple meanings according to the sphere from which it is analyzed: computer security and login, e-Commerce, e-Marketing, or digital competence. Regardless of these perspectives, digital identity as a construct is promoted and gains presence with the Internet, social networks, and mobile devices that allow its development in a socialized, collaborative, and ubiquitous way. However, this concept was already used in the 1990s with the advent of computers [9,10].

The Organization for Economic Cooperation and Development (OECD) defines digital identity as a series of inherent properties. The first one is its social character by allowing the subject to project their personality on the Internet and be recognized and characterized by it. The second property is its subjectivity as it is an interpretation of what is perceived from individual and collective action. The third points at how valuable the DI is, since the activity and the footprints left by the person on the Web generate informational capital and, consequently, and as a fourth term, it is referential since it labels said actor. The fifth property aims at the composite character that implies considering both the information provided by the person, third parties, and their environment in the construction of their DI. The sixth one is the dynamism in which the flow of information that the person, the others and the environment are generating and co-constructing regarding their DI constantly moves; so, finally, it is contextual and produces consequences since the entire flow of information refers to a context that may imply positive or negative effects on the person [3].

Therefore, the construction of DI is a complex process that implies the dialectical interaction between the individual and the group, but also, for the public and private and the face-to-face versus the digital, taking the individual to a dilemma: reconciling individuality with the collectivity that allows belonging to a given group [11], making it impossible for them to achieve a unique and final DI in one go and forever, due to its fluidity in permanent negotiation [9,12,13]. As it lacks an observable material form, it implies a series of imperatives regarding what the individual can or cannot declare on the Internet, as well as what Web 2.0 requires from him/her, to publish continuously to exist [14,15].