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Emerging Trends and Practices in the Educational Field

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Abstract

In Colombia, the higher education reform is one of the top priorities in the national political agenda, with ambitious plans to reduce equity gaps while increasing quality. The basic idea is to restructure the system that provides higher education. The successful achievement of the mentioned goals will have important repercussions for the long-term growth and development of the country. Current and future emerging trends and practices in the educational field are shown in order to conceptualize the breakthroughs made in Colombia in said field as well as the forecasts that must take place to harness their practice in the teaching-learning process.

Keywords: Trends, emerging practices, learning, technology, educational marketing, professors, teaching.

INTRODUCTION

Over the past two decades, the Colombian educational system has gone through a fundamental transformation. The access to education has become a priority with policies that seek to increase the number of enrolled students in all levels and bring educational services to every corner of the country. These services are centered on a set of pedagogic approaches and ideas revolving around Information and Communication Technologies (ICTs). The efforts are supported on a constructivist model whose vision is communicative, informational, cooperative, interactive, creative and innovative within the framework of a new learning culture.

The use of ICTs in educational scenarios has turned into a must-have formula for higher education differentiated learning-teaching processes, which are built with a high level of social interactionism. The way in which these scenarios are intertwined defines both their pedagogic potential as well as the subjacent learning theories.

These are the categories of emerging trends and practices for current and future educational settings: 1) Learning and technology, 2) Educational marketing, 3) Professorate staff and teaching as an articulating axis in the teachability process for higher education.

CONCEPTUAL FRAMEWORK

Recent educational policies have contributed to significantly broaden participation in the educational system of Colombia, especially for those levels where the number of enrolled students has been diminishing.

In 2013, 2.1 million students enrolled in higher education in Colombia. This is a net enrolling rate of 48% compared to only 28% in 2004. It is similar to the Latin American and Caribbean average rate of 44% but still way below the rates of Chile with 79% and the average of the OECD (Organization for Economic Co-operation and Development) with 72% as shown in figure 1. This figure is detailed in the documentation from UNESCO (United Nations Educational Scientific and Cultural Organization) and Universidad Industrial de Santander (UIS) from 2015.

In Colombia, the distribution of enrollment between institutions of the public and private sectors is fairly homogeneous. In 2013, 52% of students were enrolled in the public sector. Actually, the participation of student population in private institutions has showed a slow but consistent growth from 45% in 2009 to 48% in 2013 (CESU – Consejo Nacional de Educación Superior, 2014). Compared to other countries in Latin America, Colombia has an average share, which is way below Chile (84%) and Brazil (71%), but way above Uruguay (14%) and Argentina (26%) (UNESCO – UIS 2015 – most recent data available).

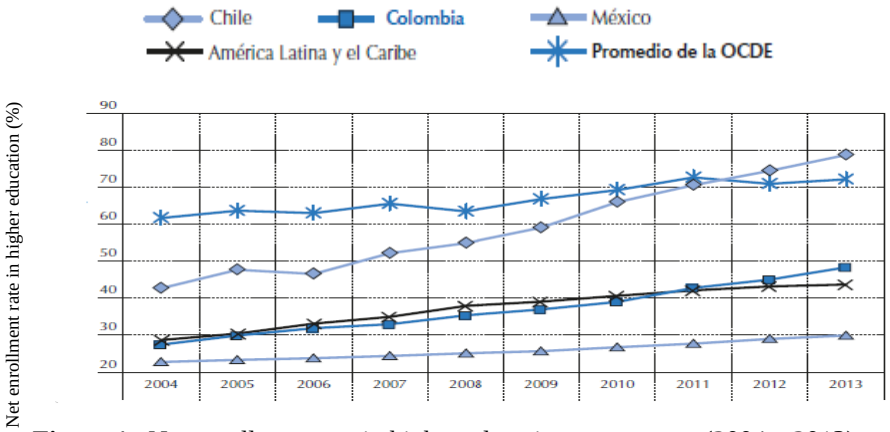

Figure 1. Net enrollment rate in higher education per country (2004 – 2013)
Source: [9].

To establish a conceptual framework for emerging trends and practices in the educational field, the first trend to develop is **Learning and technology**. figure 2 lists seven differentiating perspectives for knowledge building in the 21st century, used for ICTs.

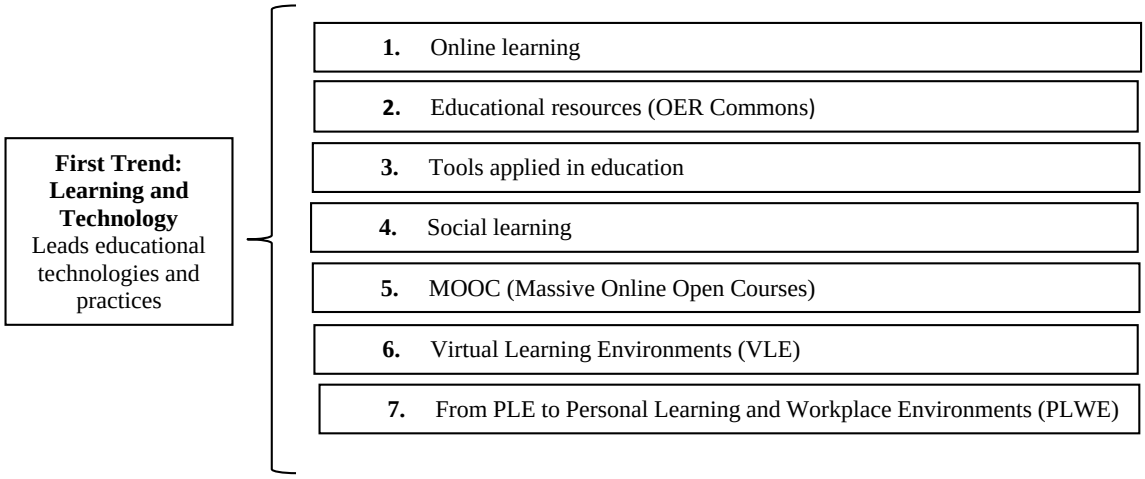

Figure 2. Trend n° 1: Learning and Technology
Source: Ramírez, Rivas y Cardona. 2018

Table 1. Trend n° 1 in higher education for learning and technology

1. LEARNING AND TECHNOLOGY		
N°	**Educational practice or technology**	**Characterization**
1	**Online learning**	Distance teaching modality in which the student is not physically present with the professor, but connects from home, his workplace, an internet café or a library. When carried out through electronic means and platforms, it is called online education or e-learning. Its virtual-based interaction takes place in a portal specifically created for said purpose, containing the tools to support the learning process of the student. It is often related to blended learning [1].
2	**Open educational resources (OER):**	Generic denominator that includes courses, curricular programs, didactic modules, student guides, textbooks, research articles, videos, podcasts, evaluation tools, interactive materials (such as simulations), databases, software, applications (including mobile apps) and any other educational material designed to be used in teaching and learning [12].
3	**Tools applied to education**	Internet-based tools are essential in professional education scenarios for students and are most used by citizens. These include websites, p2p networks, e-mails, formative forums, chat or messenger, videoconference, VoIP, edublogs and webquest. The skills needed by website users are tied to: knowledge and technical expertise in informatics programs or devices, information search, basic speech and communication abilities, capacity to organize content and critical judgment [8]. Using internet tools applied in the professional education field requires basic informatics skills with different degrees according to the chosen virtual instrument. Furthermore, other abilities sought in the workplace may also be necessary.
4	**Social learning**	Based on observation or imitation, it is a key method to understanding, modelling, applying and managing the learning process of individuals through social network resources. The network can be combined with formal learning processes both for on-site and online scenarios to improve the latter [1]. The technology used is based on Debian, an open source platform for the creation of communities with success in other types of experiences (HEXTLEAN). Debian can combine the power of a social model with the structure of courses and work teams.

5	**MOOC (Massive Open Online Course)**	Online courses designed for the interactive participation and large-scale open access to the web. In addition to the materials of conventional courses such as videos, readings and problem solving, MOOCs offer interactive forums of users that contribute to the community for students, teachers and teaching assistants. The purpose is not to simply gather users for courses but also establish an opportunity to create communities of professionals that can use these same open learning strategies for their professional development [11]. In 2011, MOOCs mainly include interactive materials and videos in addition to multiple-choice surveys. Other alternatives such as Udacity, Coursera and EdX mostly offer video conferencing, course materials, tests and homework.
6	**Virtual Learning Environments (VLE)**	As emerging practices in learning and technology, VLE gathers different types of tools: synchronous (instant messaging) and asynchronous (forums, e-mail) communication, management of digital-format learning materials and management of participants through tracking and evaluation systems of student progress. Lately, some models analyze the collaborative construction of knowledge such as [5]. The authors analyze the cognitive presence, i.e., the degree in which students build meaning through thought and speech under four phases: initiation, exploration, integration and resolution.
7	**From Personal Learning Environments (PLE) to Personal Learning Workplace Environments (PLWE)**	**PLE** – Mainly pedagogic concept that defines anything used by a person to learn in their everyday life, in any context (formal, informal, non-formal). There are three important elements in a PLE, which are the tools, the sources of information and the activities of each person. Educational institutions are focused in developing their own mobility strategies that should prioritize the student's creativity and shortly put the technological component in the background. The knowledge society demands a substantial change in the way of understating the role of ICTs in education. ICTs are no longer integrated in higher education institutions but serve as "the environment where interactions and communications are enabled in the permanent learning process of people [5]. 1) They are an educational practice where current trends concur (learning and technology, educational marketing and professors and teaching). 2) They are symptom of the social and organizational transformation taking place in higher education.

Source: Ramírez, Rivas y Cardona. 2018

The second trend is Educational marketing, which allows educational organizations to identify the needs of their target (students) and fulfill them through a proposal value that turns into a service offer (teaching and training). This leads to benefits and shapes educational services in response of the demand of students. figure 3 presents each educational strategy included in the second trend: One-on-one education, Learning Analytics (LA), Facebook / Gmail ads and Life-long learning. Table 2 summarizes said strategies and the technologies involved.

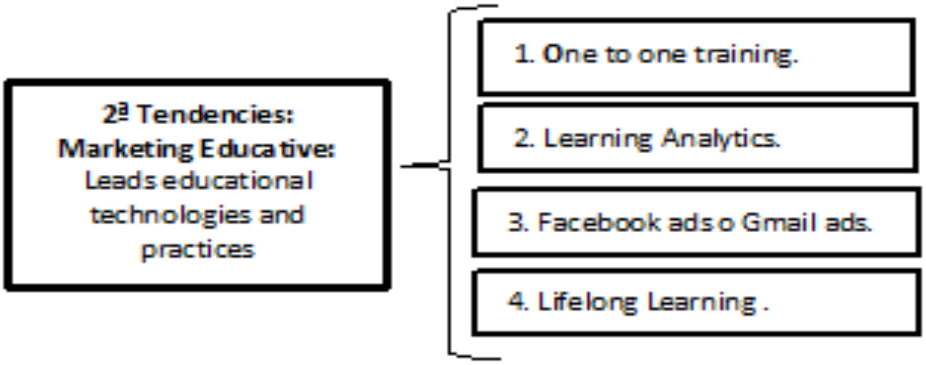

Figure 4. Trend n° 2: Educational marketing.
Source: Ramírez, Rivas y Cardona. 2017

Table 2. Trend n° 2: Educational marketing. Source: Ramírez, Rivas and Cardona. 2018

1. EDUCATIONAL MARKETING		
N°	**Educational technology or practice**	**Characterization**
1	**Online learning**	Also known as personalized marketing, it consists on individual sessions where education is completely tailored to the needs of the student. It gives total flexibility and immediate feedback from the teacher. Some of its features are: wide possibilities of schedule, 100% personalized and recoverable classes, goal-based program, unique methodology and constant feedback [2].
2	**Learning Analytics (LA) to create Personal Learning Workplace Environments (PLWE)**	It can measure the effectiveness of the adopted methodologies, valuing criteria such as the participation of students, the intensity of usage of available tools, the formative paths or the relatively adequacy of contents used to reach the defined goals [4]. The final objective of Learning Analytics is to generate optimal PLWE (Personal Learning Workplace Environments) that can adapt the methodologies and content to the needs of the student and thereby improve his learning capacity. This practice has an impact on three areas: Personalized learning, Adaptive Learning and Educational Intervention.
3	**Facebook or Gmail ads**	It is the advertising system used by Facebook and other websites, events or apps. It can be used to create text, graphics and video ads that will appear in the home, profile and photo sections of users by only paying for the received clicks. Due to the magnitude of this social network, Facebook ads have become an essential weapon for organizations.
4	**Life-long learning (permanent education)**	Recognized as a right for all citizens (A. J. Magana, 2014), the need to recycle teachers is justified since they have to absorb new contents, acquire new skills, learn how to use new tools and adopt new teaching strategies and teamwork methods in order to help students learn.

An educational trend in higher education is University teaching understood as the need of a formative practice throughout every formal and informal process of professional preparation for the exercise of the pedagogic praxis. The professor is a professional whose everyday work is full of unknowns that cannot be answered with preconceived formulas that demand a structuration of knowledge, skills and values for problem solving within the educational context. This trend is expressed in figure 4 and its characterization is described in Table 3.

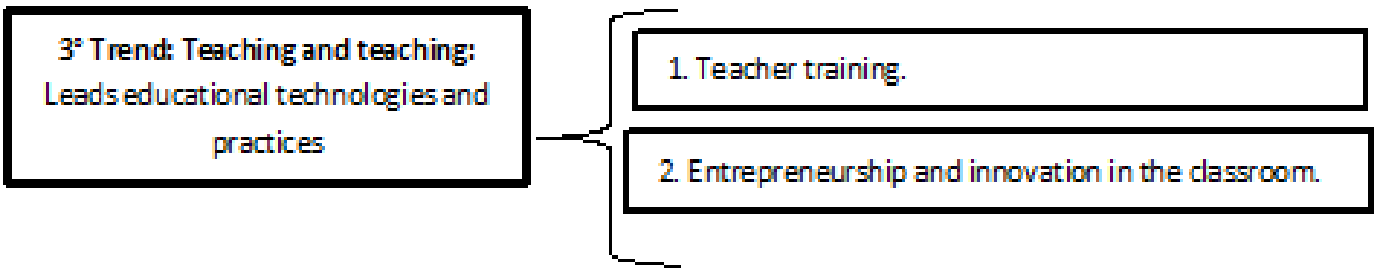

Figure 4. Trend n° 3: University teaching – professorate and teaching. Source: Ramírez, Rivas y Cardona. 2018

Table 3. Trend n° 3: University teaching. Source: Ramírez, Rivas and Cardona. 2018

1. UNIVERSITTY TEACHING		
N°	**Educational technology or practice**	**Characterization**
1	**Teaching process**	The models and approaches in formative processes are still based in traditional epistemological paradigms originated from the modernity and not from the new society of information and knowledge. No tools or conceptual frameworks that enable working with uncertainty are transmitted nor rapidly changing knowledge in diverse and difficult contexts [7]. The relation between formative teaching and educational practice has been generally thought from a cause-effect model. In this scheme, the formative process is an external mechanism acting outside of a stigmatized and undervalued practice.
2	**Entrepreneurship and innovation in the classroom**	This pertains to science and technology integrated to education by fostering a culture of research, strengthening public policies, training human talent and consolidating technical and technological education. It is also related to the professional development of teachers, honoring their work and training them and the administrative staff [10]. Innovation in education is defined by developing the talent and creativity of human capital with education, research and innovation, as new technologies are incorporated in educational processes in order to review and abandon older obsolete practices. To advance in the consolidation and implementation of innovative projects, individual and collective actions and practices are required that respond to a planned, intentional, systematic and deliberate process, in terms of creation and development. This can lead to transformations in the formative process of teachers, which can be evidenced in classrooms where the incorporation of ICTs plays a fundamental role.

CONCLUSION

New technological tools and applications at the service of the education such as the creation of debate groups in social networks such as LinkedIn or using Twitter for different purposes contributes to establishing an online learning structure. In said structure, the teacher carries out a design process of the content but it is the interaction where ideas are exchanged and learning takes place. Differential roles are established between the tutor (teacher) and the participant (student) with responsibilities accompanied with a formative assessment system. However, it seems impossible to use emerging trends and practices in the educational environment from instructivist and transmissive educational and knowledge perspectives based on previous assessment of the required knowledge, including the segmentation of skills, the transmission of contents and the constant supervision and meticulous control of the learner. Understanding what it means to discuss emerging trends and practices in the educational environment is to grasp the common idea of numerous approaches that the society people live in is complex and ever changing and that the purpose of education is, above all, to train people capable of learning with others, which is almost as important as learning from others.

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