



Presentation

Thematic Dossier “Education and Digital Media”

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The 5th Research Colloquium on Education and Media was held at the Federal University of Rio de Janeiro State (UniRio) in November 2016, under the coordination of Dr. Guaracira Gouvêa. The colloquium aimed to establish links of cooperation to strengthen post-graduate programs linked to those research groups whose object of study is the relationship between education and the media. The proposal brought together people from different universities who conduct research in the area, and one of the products is materialized in this Education and Digital Media dossier, which brings together research results developed by the groups that participated in the colloquium. Educommunication, Distance Education, Computer Technologies, Videos... the issues involving digital media and education are multiple and diverse: in the set of works gathered in this dossier we have a sample of educational possibilities of digital media, with a very broad panorama of how they have been established in the scenario of school and non-school education in Brazil and in the world.

The computer science phenomenon at the beginning of the third millennium mobilizes an informational and communicative revolution and has spawned what the authors have called the "Information Age". In addition to the technological advances that allow the production of audiovisual material (photographs, videos), a significant manifestation of the computer revolution with regard to everyday life materializes in virtual social networks (from pioneer Orkut to today's Facebook, Instagram and Twitter), that are present in the daily lives of large numbers of young people (but also in other age groups) and have generated a new order in communication and social interaction. For educators, this raises an important question: how is the school situated the construction of knowledge and the transmission of information in the face of this phenomenon?

Patrícia Teixeira de Sá, Mirna Juliana Santos Fonseca and Carla Silva Machado, with the work *Culture of reading and writing in media-educational practices in Rio de Janeiro's municipal schools*, address some important questions to reflect on this: they start from a quantitative research on media-educational practices carried out inter-institutionally in 911 schools in the Rio de Janeiro's public school network, which points to a low occurrence of digital and audiovisual media production in schools, but a resurgence of the action of watching movies / videos. The production practices of materials related to the culture of print (books, fanzines and newspapers), on the other hand, are well established. From this information the authors structure arguments for understanding this scenario, whereas students are very active in virtual networks, share opinions and produce content through them, and from this apparent lag they argue about the need for a systematic and prolonged institutional articulation so that school learning can be enriched with the potential of using digital media.

Digital technologies, in addition to the horizontal relationships in the dissemination of information provided by social networks, also facilitate the active production of audiovisual material and, in the school context, simplify the possibility of presenting videos to students,

what justifies “watching movies / videos” was a much cited item in the above research. With work *Why do teachers use videos as mediators in the learning process?* Bianca Cassola Pereira and Hylío Laganá Fernandes tried to understand, through an exploratory study done in the region of Sorocaba, São Paulo State (Brazil), the motivations that lead teachers to adopt this pedagogical practice, as well as reflect on elements that relate to how they use video. The results showed that most teachers use videos in their practices and the few who do not use them claim lack of physical structure and / or time to select works. Teachers who use classroom videos point out their potential to “illustrate and complement” the content of the discipline, highlighting among the justifications the interactivity provided by digital media in the “Society of Image”.

About the potential of using classroom videos and considering the contribution to student learning in the Chilean educational context, Iván Rivera Viguera and Alejandra Nocetti de la Barra with the research *The use of video as a didactic innovation in the philosophical class in a public school in the Colonel (Chile)* evaluated the effectiveness of integrating videos as didactic resources about school performance and students' interest in Philosophy classes. The research was conducted with 4th grade students from a Chilean public school, involving an experimental class and a control class. The results showed an increase in school performance in the experimental class and the students were satisfied with the didactic innovation. However, there was no greater interest of students in relation to philosophy classes.

In the same sense, to what extent do educational processes incorporate digital technologies, but within higher education, Lucas Marfim and Lucila Pesce, with the work *Initial training of the pedagogue to integrate the ICTD in the educational practices: a case study*, investigated how the digital information and communication technologies (ICTD) fit and contribute to the formation of the students of the Pedagogy course. They considered the daily experience of undergraduates, manifested above all in access to information and interactions in social networks, as well as the requirements for its use by the university. They developed a case study and the research results pointed to a secondary role in the incorporation, problematization and discussion of ICTs and the teaching and learning processes, leaving the ICT-Education relationship limited mainly to the discussion of technological apparatus. As the main development, the authors pose the challenge that the formative process provides a relationship in which ICTs are intertwined with the socio-cultural practices experienced by the subjects, overcoming, also in higher education level, the apparent gap of daily experience with ICTs and pedagogical practices.

In order to analyze the dynamics of incorporating ICT (information and communication technologies) into teaching and learning processes in a school, Gabriel Francisco Cevallos Martínez, Cinthia Margarita Sabillón and Verónica Sofia Ficooseco's research, called *ICT Practices according to Honduran students and teachers*, focuses on in the way digital technologies are applied by teachers and students in everyday practices and how these groups perceive and value teaching and learning supported by ICT, using questionnaires and qualitative and quantitative analysis. Still regarding the use of digital tools for the teaching and learning process, the research *The use of YouTube videos to support the learning process*, by Estevon Nagumo, Lúcio França Teles and Lucélia de Almeida Silva notes that watching online video is one of the most performed activities on the Internet in Brazil, according to data from PNAD Continuous 2017. To explore the relationship of this activity with education, the aim of their study was to identify ways to use YouTube videos to support the learning process by college students. To try to elucidate this issue, a systematic review of the literature on YouTube and education was conducted in the catalog of theses and dissertations and content analysis.

The necessary training of teachers to deal more adequately with ICT in education appears as a relevant point in this scenario. Marina Bazzo de Espíndola, Rosely Zen Cerny and Rachel Seixas Xavier provide some elements to think about this question when analyzing, in the work *The perspectives of technology of educators in training: values in dispute*, the precepts attributed to digital technologies in educational practice, from the research in the productions of Digital Narratives held in the Specialization Course Education in Digital Culture by educators from public schools in Santa Catarina State (Brazil). Also seeking to better understand how undergraduate students understand technique and technology, Guaracira Gouvêa organized image production workshops, addressing the concepts of visual culture, image, technique and technology, and analyzed the conceptions manifested from photographic images produced by students. The results of the work *Visual culture and image technique produced by undergraduate students* indicated that when choosing and justifying the images produced, students proved to have a visual culture “guided by visuality, by the tendency to figure or visualize existence”, understanding the technique as a means to an end and confusing technology with the technical apparatus. All demonstrated familiarity with the “cellular” technical artifact and did not criticize this use: contemporary artifacts, particularly the cellular, so embedded in daily life, so ingrained in everyday actions, that strangeness becomes difficult. For this reason, neither technique nor technology, both producers of visual culture, is problematized.

In order to reflect on the training of additional language teachers in the digital age, some pedagogical interventions were conducted in undergraduate courses in English-language at a Brazilian federal university and a Chilean university. The article entitled *Affordances of language teacher education in the digital age* of Kyria Rebeca Finardi, Carlos Alberto Hildebrando Junior and Felipe Furtado Guimarães based on the notion of affordance in relation to the effects of globalization with their ICTs tells us this experience whose data were generated through participant observation and interviews with the teacher trainers.

But how are these phenomena presented if we consider Distance Education (DE), which currently has its fundamental support in digital media interaction? Antonio Siemsens Munhoz and Dinamara Pereira Machado present the results of the research *Interactions, theories and massification: a case study of the implementation of the distance learning master room* on the implementation and development of the distance learning virtual master room, which uses virtual learning environments (VLE) and attends a large number of students from various courses of a private educational institution. The research involved teachers, interaction data and the identification of pedagogical practices derived from andragogy and heutagogy over a period of fourteen weeks. The results showed that interactions between educational actors only occur with the intervention of teachers, which students prefer to study through written material despite the availability of other materials, and suggest the need for specific training to work in the context of an ongoing Master's Room.

On the use of media for specific training, the article *Potentialities of the Google My Maps tool for teaching geography in Portugal*, by Luiz Martins Junior, Rosa Elisabete Militz Wypczynski Martins and Marcia Vidal Candido Frozza, is an offshoot of a doctoral research on digital technologies, focused on the use of the Google My Maps tool in the teaching of geography and that was carried out in a practice that focused on the construction of maps on the cartography of Portugal, conceived from a perspective of a collaborative qualitative research involving 28 high school students from a public school in Carcavelos (Portugal). In general, the organization of this practice indicated that this tool has a good didactic potential and has versatility of use to develop the main notions of school cartography and contents about the Geography of Portugal. Adding to the use of media for specific training, but this time focusing on Environmental Education (EA), Clarides Henrich de Barba and Ana Paula Batista

Lopes's research, *Environmental Education mediated by information and communication technologies at the Federal Institute of Amazonas - Campus Humaitá* aims to investigate how ICTs can be used in the learning process of EE. The relevance of the care with the environment aiming at the environmental sensitization, as well as the solid waste disposal, both in the school and outside it was approached.

About the social and identity impact of the media, the research by Juliane Di Paula Queiroz Odinino and Gustavo José Assunção de Souza, titled *Massive cartoon and children's imaginary: narratives, myth and media in school mediation*, seeks to understand how media repertoires addressed to children's audiences participate in the constitution of the mass culture imaginary, through which the language of cartoon has enjoyed a centrality in the globalized scenario. The article presents countless possibilities for the use of cartoons, discussing the possibilities of pedagogical mediation with a view to the qualification and promotion of a critical, diversified and participative child reception.

In the field of health, the research entitled *Open Educational Resource: Necessary Knowledge on Compulsory Notification* by Geraedson Aristides da Silva, Geraldo Magella Teixeira and Kerle Dayana Tavares de Lucena presents the process of building an Open Educational Resource on Compulsory Notification (NC), created due to the lack of knowledge of the vast majority of students and health professionals and disability in higher education on the subject. This is an exploratory, descriptive study with a qualitative approach, whose conclusion points to the fact that information about NC supports the learning of health professionals and students, who often need to overcome the difficulties in their own knowledge and contribute to health promotion and prevention strategies for the Brazilian population. Still with regard to health, the research by Mirian Ueda Yamaguchi, Josiane Kelly de Barros, Rosane Clys de Barros Souza, Marcelo Picinin Bernuci and Leonardo Pestillo de Oliveira, entitled *The role of digital media and digital literacy in non-formal health education*, discusses the ability of the individual to interpret, evaluate and effectively use health information obtained through digital media. Considering the increasing use of digital media as a source of health information, the study was developed with a sample of 423 individuals through a digital questionnaire to obtain socioeconomic data. The results indicated that higher levels of education and income correlate with higher levels of digital health literacy and that a government strategy that seeks to use social media as an alternative to non-formal health education should be aware that the success of this strategy goes beyond the need to invest in formal education.

To close the dossier we bring two interviews, one with Michael Cole, emeritus psychologist at the University of California-San Diego, and other one with Marnie Gelbart and Nadine Vincenten, who run the Personal Genetics Education Project (pgEd.org), linked to the School of Medicine at Harvard University.

Michael Cole has been a key contributor to the introduction of Vygotsky's ideas into the United States and has published extensively on mediation of instruments in cognition and learning. Touch screen technology has made digital access increasingly easy, and there is growing worldwide access for children who have not yet been literate to browse NET. The increasing use of this technology, and its possible implications for cognitive development, has given rise to polarized opinions, with groups arguing for and others against. In *Interview with Michael Cole: Cognition, Digital Technologies, and Learning from the Perspective of Historical-Cultural Psychology*, researchers Zena Eisenberg and Rosália Duarte seek to understand, in this eminent psychologist's view, how and if digital media, more specifically touch screen technology, can impact on children's cognitive development.

The Personal Genetics Education Project (pgEd.org) is the laboratory responsible for the scientific dissemination of work done at the Department of Genetics at Harvard Medical

School. The purpose of this project is to raise awareness and dialogue about the benefits and ethical, legal and social implications of Personal Genetics. To this end, the pgEd group conducts actions in schools, libraries and museums, engages with film and television producers, creates platforms with games and online activities to attract audiences through social media, and produces and makes videos available on the Internet, such as the recent Personal Conversations / Personal Genetics series. Fabíola Simões Rodrigues da Fonseca interviewed Marnie Gelbart, project director, and associate scientist Nadine Vincenten, to understand how this group of researchers understands and uses the potentials of interaction between education and digital media.

Good reading!

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