

Presentation

App-learning in the digital era: knowledge in the school context

When this dossier was first thought, the world was different. Regardless of the type of legacy we will have in the school environment and in our social life, the fact that we have gone through a worldwide pandemic, which prevented millions of children from going to school, boosted the use of educational technologies in a dimension and with consequences that only time can show us. However, there is no fear whatsoever in stating that applications (or apps) are already present in our lives in an irreversible way, even if in different proportions for each individual.

Howard Gardner and Katie Davis, in their book *The App Generation* (2014), provokes us; they defend the theory that the young people of today “*Not only do they grow up surrounded by applications, but they have also come to understand the world as a set of ordered applications or perhaps, in many cases, as a single application that lasts over time and that accompanies them from the cradle to the grave.*” (2014, p.21). For the authors, this new generation would have their life organized as a “super app”, in which everything they need for their daily lives is quickly accessible: tasks of the day, access to music, news, traffic, social networks, games or weather forecasting, among many others, being able to select and organize them in a personal and individualized way (GARDNER & DAVIS, 2014). The only requirement is that they are fast and that they take us exactly to the point where we want to go.

This new Generation’s relationship with applications, not limited to it, brings a series of new and important discussions in different areas: in education, the central focus of this dossier, as well as in sociology, psychology, communication, computing, among many others. It is part of a large area of digital humanities, in which we need to discuss the role of technology in our lives, not only from a quantitative point of view, with an exponential increase in its presence year by year, but especially in quality, analyzing whether it appears as a facilitating element of our daily lives or if, on the contrary, it comes to exist as a centralizing and determining element of our actions.

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Within the school, even because it is a direct reflection of what happens in the society in which it operates, applications also begin to be increasingly present on different fronts. On one hand, apps developed for non-didactic purposes are beginning to be used by teachers in the classroom; Even before the pandemic, reports of experiences with its use in different disciplines were not uncommon, as well as at different levels of education, from early childhood education to higher education. On the other hand, there is an increase in initiatives for the development of teaching materials in this format, specifically aimed at this public, the school; initially adaptations of the printed materials, perceived perhaps as a form of savings for large publishers, are currently elaborated considering the many possibilities of combining media, enriching the learning experience. Finally, a third entry front of applications at school is directly related to its development by students, who learn to program, assuming a leading, active and creative position, in the production of software that may interest them inside or outside the school. Several initiatives in this direction are already taking place in Brazil and in the world, and we highlight in particular those that use computer education and programming to empower student girls, helping them to assume a leading role in an area marked by the massive presence of boys .

In addition, technologies in a broader sense, and apps in a more specific way here, can help in the most varied learning processes, giving access to those who previously had difficulties, adapting almost individually to the specific needs of our students , which makes the learning experience even more meaningful.

Thus, the objective of this dossier is to bring works that address different aspects that involve the use of applications today, especially those related to education, but not restricted to it, discussing its permeability in today's society and at school. For this, national and international reference researchers, currently focused on investigations on media, technology and education, were invited to do an exercise of reflection on what is already a reality, as well as what could be the future of this resource within the schools.

In their texts, the researchers approach different perspectives that have applications as digital resources that enable a deeper reflection of the complexity that is the adoption of media in the school context, its integration in the classroom, its use with different audiences and the inherent difficulties to this process, which range from not addressing this theme during the initial teacher training - and the consequent teacher insecurity resulting from this gap, to the lack of school infrastructure, including theoretical and methodological issues.

We also believe in the importance of having a broader scope of our texts and reflections, democratizing written knowledge in different languages. For this reason, the articles in this dossier received translations, either in English for those originally written in Portuguese or Spanish, or in Portuguese for those written in English or French. I appreciate the efforts of each author to make everything possible.

Thus, in the first text, entitled *Pantallas digitales para varias infancias*, by Mariona Grané, a researcher at the Universitat de Barcelona, the author addresses a fundamental theme when it comes to educational apps: its quality. For this, it provides an overview of different app classification systems, emphasizing that, as they are currently structured, they emphasize the presence of certain elements, without truly evaluating them qualitatively. Therefore, the author presents a sequence of 04 studies that detailed the analysis of different educational applications, aiming to understand them from different elements, turning in the last study to applications for children with special educational needs.

Reading an application: perspectives on the construction of meaning in digital literary reading in early childhood, by Aline Frederico (Pontifical Catholic University of São Paulo), is the second text in this dossier and looks back at literary applications directed at children. In it, the author presents us with a qualitative study in which she observes and analyzes the shared reading of children's literary applications by children of preschool age and at least one of their parents, pointing out three central dimensions: corporeality, affectivity and agency. With details of some interactions, the researcher Aline Frederico manages to capture the complicity that is established between readers and story, making the reading experience even more significant. If you are interested in the topic, I suggest you watch the conversation we had for the Human and Digital project (<http://humanosedigitais.ufsc.br>), in which Aline Frederico details and exemplifies her research).

Another text that brings us a look at research with children, mobile devices and literature is the article Mediation of digital literary reading with children, by Mônica Daisy Vieira Araujo, from the Federal University of Minas Gerais, and Roberta Gerling Moro, from the Federal University of Rio Grande do Sul. In it, the researchers present data referring to two studies in which they analyze the mediation of the adult at the time of reading and its reflection in the interest, engagement and autonomy of the child to read a digital work. A literature review on the use of digital technologies and digital literacy is also carried out, theoretically supporting the discussion on the topic.

Based on a survey of teachers from public schools of basic education in Florianópolis / SC, the article Practical challenges in teacher training for the use of applications as educational resources, by Juliana Cristina Faggion Bergmann, Gabriela Marçal Nunes, Kadhiny Mendonça Policarpo and Maria Paula Cruz Fonseca, all from the Federal University of Santa Catarina, discusses some challenges faced by teachers with regard to the integration of activities with the use of technologies in the classroom, especially apps. The authors emphasize that the importance of teachers to better understand

the educational potential of these resources, as well as the methodological changes necessary for their implementation, was perceived.

In the article *Flipgrid: a video app for virtual exchange, language and language learning*, Pilar Concheiro, from the University of Iceland, Olivia Espejel and Joan-Tomàs Pujolà, both from the Universitat de Barcelona, present us with an exchange experience between students of the two universities - students and future teachers of Spanish as a foreign language - who have reduced their physical distances using the Flipgrid application, which allows for the recording of short videos organized on themes predetermined by the teacher. The researchers analyze the participants' videos from three groups of strategies: technical, affective and communication, as well as their impressions in relation to them. The results are interesting and deserve further study.

The text **Ludifier l'enseignement de l'économie au secondaire: une étude de cas auprès d'un enseignant et de ses 34 élèves**, by researchers Thierry Karsenti and Simon Parent, both from the Université de Montréal, reports a situation of use of the educational app *FinÉcoLab*, developed by the Interuniversity Center for Research in Organizational Analysis (CIRANO) and which proposes to work, in a playful and interactive way, notions of economics and finance, organized into 5 categories: market and price, individual preferences, individual choices, collective choices, agreements and institutions. Emphasizing the importance of economic and financial education, the authors develop a case study with a group of students and a teacher at a Montreal high school and present their views [of students and teacher] about the application.

Closing the dossier, the text *The role of Basic Education students from the development of smartphone applications*, by Giselle Araújo e Silva de Medeiros, Christiane Gresse von Wangenheim and Jean Carlo Rossa Hauck, the first, a teacher at the Municipal Education Network of Florianópolis and the others, from the Federal University of Santa Catarina, present us a research developed in a municipal school in the city of Florianópolis, within the project *Young Tutor of Programming*. In it, students are encouraged to learn computational thinking through the development of their own applications, in a visual programming language, created from the needs they perceive in their surroundings. With their text, the researchers show us possible practical paths of activities with the use of applications that develop different skills of the students.

Thus, in a scene that includes studies developed in America, Europe and Africa, in this dossier we have a look at apps as a resource of innovation and creativity, which encourages teachers and students to rethink their roles in the didactic context, knowing and recognizing their practices. and their learning through this innovative resource, present in

everyone's daily life, regardless of age, interests or education, but especially close to youth, who grow immersed in this context.

In a pandemic moment that we are going through, which forces us to think and rethink pedagogical practices, integrating some type of technology to reduce the physical distances that the sanitary emergency requires, knowing what is already being researched in this area can be an inspiration for teachers and future teachers.

Thematic Editor

