“Let the Orientales be as enlightened as they are brave”

The digital divide in the context of Uruguay’s public schools

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In this paper we present two recent information literacy and access initiatives in Uruguay and their necessary historical antecedents, and analyze them from a phenomenological perspective to provide commentary on current philosophical discussions about information and the digital divide. To provide historical context we present a brief history of the creation of a public library, the national library and the public school during the period of independence wars in 19\textsuperscript{th}-century Uruguay, and the legacy of educational reforms that followed, which are at the core of the cultural identity of Uruguay. We then analyze the ambivalent achievements of “Plan Ceibal”, a state programme aimed at providing laptops to public schools, and a bottom-up project called “Biblioteca Nuevo Roble” (New Oak Library), a project run by students of the Institute of Information at Uruguay’s State University that aims at the creation of a school library at Public School No. 230, located in a low-income quarter of Montevideo. The conclusion analyzes the role of libraries in improving access to education and information. The paper aims at a critical understanding of the digital divide by showing what remains hidden behind theoretical ambitions, dogmatisms, economic interests, and political projects. Information ethics is at the heart of phenomenology of information.

Keywords: Philosophy of information, digital divide, school library, Plan Ceibal, Biblioteca Nuevo Roble, Uruguay, public schools, phenomenology, information ethics

1. Introduction

Digitization is a major philosophical challenge of the 21st century. The debate on the ontological, anthropological and ethical issues of the digital age is just beginning \cite{1}, and there is discussion underway about digital ontology \cite{2}. What does being digitizable imply for the understanding of being itself? If ontology deals, as we think it does, not only with our understanding of beings in their being but also of being itself, then digital ontology has to do with our understanding of being as digital. This is not identical with the metaphysical idea that things are made of bits, a kind of digital Pythagoreism, nor of the kind of a fundamental reflection about the “ultimate significance” of “physical quantity” addressed by John Archibald Wheeler...
with the dictum “it from bit” [3]. It is also different from the Platonism envisaged by Luciano Floridi with what he calls the infosphere in a broad sense, i.e., the view of forms as being the nature of reality. Infosphere is then just another word for the whole of reality. According to Floridi, the infosphere in a narrow sense comprises all kinds of informational entities, particularly digital ones, building the core of the “fourth revolution” [4]. But reality as a whole is nothing we can conceptually or empirically know about, as argued by Kant against the pretensions of metaphysics. The use of the term infosphere is not only uncritical but also equivocates two different, non-comparable meanings [5]. Anthropological issues include, for instance, the understanding of the human body as data and the possibility of manipulating ourselves, giving rise to various kinds of enhancements and to the hype about transhumanism [6]. Who are we as individuals, as groups and as humanity in the 21st century? This is a key ethical question when it comes to making a difference between who and what we are, i.e., between the social interplay of mutual appreciation or depreciation and all kinds of artificial products through which we reify ourselves, creating the possibility of exchange based on the value we attribute to our products within the social interplay. Such interplay is always a power play of interests, principles and traditions. In the digital age, this reification concerns also who we are or our ‘whoness’ as far as we are able to represent our selves digitally and make this digital reification one of the major economic resources of the 21st century [7].

The aim of this paper is modest with regard to such large philosophical issues. It deals with the Uruguayan state project “Plan Ceibal” and with a student project of creating a library called “Biblioteca Nuevo Roble” (New Oak Library) in a public school located in a poor neighbourhood of Montevideo called Puntas de Manga. At the same time, our narrative deals with ontological, anthropological and ethical questions that become theoretically explicit when facing historical, cultural, political and socio-economic issues. A phenomenological approach is taken, aimed at unveiling the phenomenon at stake, which is the relation between education and information in the context of a school library whose non-existence was perceived as a major social handicap by the school teachers and a group of LIS students of Uruguay’s State University (Universidad de la República), one of their leaders being the co-author of this paper. One reason for positing these case studies as paradigmatic for a phenomenological approach to the philosophy of information is that we aim to make explicit, based on concrete examples, the limits mostly ignored by the promises and obsessions of the digital age. From a phenomenological perspective, to address the digital divide is an issue that concerns access to digital information for the socially and economically disadvantaged as having to do with the material and social basis for its meaningful use for educational purposes, such as a school library as well as well-prepared (and well-paid) teachers and librarians. We make a strong argument over the issue of giving pupils access not only to the internet or to some kind of digital material stored on school servers, but to books and printed material as well. We envision the school library as a place where teachers, pupils and their families,
particularly under impoverished living conditions, can meet and develop their own ideas from a bottom-up perspective.

Hence, this paper is a plea for reflecting critically on the relation between information and education, disclosing by doing so the social phenomenon that is blurred by the predominance of the digital. What we aim at disclosing is the human interplay in the context of a public school and the role a school library should play in the setting of this particular country with its history and culture. It is only by making this context explicit that the use of digital technology can make sense theoretically and practically for the sake of a better life for pupils, teachers and families involved directly in an educational and informational process. Our analysis of the “Plan Ceibal” and the “Biblioteca Nuevo Roble” projects can be understood as a contribution to a comparative phenomenological study of information cultures in the digital age [8].

The remainder of this paper is structured in three Sections 2–4) before the conclusion. In Section 2, a brief history of the creation of a public library is presented, followed by a history of the national library and a history of the public school during the period of independence wars in 19th century Uruguay. This legacy includes educational reforms that are at the core of the cultural identity of Uruguay. Section 3 analyzes the ambivalent achievements of “Plan Ceibal” a state programme aimed at providing laptops to public schools. In Section 4 the bottom-up project called “Biblioteca Nuevo Roble”, run by students of the Institute of Information at Uruguay’s State University, is presented, a project that aims at the creation of a school library at Public School No. 230, located in a low-income quarter of Montevideo. The conclusion then analyzes the role of libraries in improving access to education and information.

2. Looking back

In August 14, 1815, the priest and botanist Dámaso Antonio Larrañaga (1771–1848) sent a letter to the Cabildo (town council) of Montevideo proposing the creation of a public library. He writes:

If it is a duty of every citizen (“ciudadano”) to contribute to the advancement and enlightenment of his country. This is much more the case for those who are in charge either of governing, regulating or instructing the people (“los pueblos”). [...]

Due to the lack of teachers as well as of possibilities to get them from outside the country, what kind of means remains for educating them ourselves? Wouldn’t it be one of our major glories for us to owe our enlightenment only to ourselves? Books then, Your Excellency, must replace all this. The talents of our Americans are so privileged that they just need good books to become eminent in all fields. But because they cannot provide them by themselves due to a lack of means or even to select them in a country where they are so scarce and expensive, the establishment of a public Library [“Biblioteca pública”, sic] is necessary, where our young people can go along with all those who want to know [9, pp. 31–33] (our translation).
Larrañaga offers in this petition to donate his own books that included grammars of European and indigenous languages such as Guarani, Quechua and Araucanian. He asks the Cabildo to forward his proposal to the General-in-chief of the Orientales – this was how the people living east of the River Uruguay were referred to – José Gervasio Artigas (1764–1850). The Cabildo approved the petition and so did Artigas, who chose the following password for his troops: “Let the Orientales be as enlightened as they are brave” (“Sean los Orientales tan ilustrados como valientes”). Larrañaga was elected first president of the Biblioteca Pública de Montevideo and held his inaugural speech on 26 May 1816. He stressed that all should have access to the library, independently of their origins or levels of education [9, pp. 34–50].

The library started with some 5,000 volumes that included other donations such as one by the priest José Manuel Pérez Castellano (1745–1815) [10]. Pérez Castellano wanted to donate not only his private library, but also the revenues of his private properties to be used for maintaining the library and paying the salary for a librarian. But this last will could not be fulfilled in due time because of bureaucratic impediments following his death in 1815. During the Portuguese conquest of the Banda Oriental – this was the name of the province east of the River Uruguay that the Portuguese called Provincia Cisplatina – in 1816, the library was closed, and the new colonial power was not interested in the collection. Most books were taken away and archived in the houses donated by Pérez Castellano. People like Larrañaga, Pérez Castellano and, of course, Artigas himself were phenomenologists avant la lettre in the sense that they were aware of something lacking or concealed in the political, social, economic, and educational present reality of the Provincia Oriental, a Spanish and Portuguese colony for over three hundred years. What was concealed for Artigas, (who was inspired by the ideas of the European Enlightenment and the US Constitution – he used the Massachusetts Constitution of 1780 as a model for his “Constitución oriental” [11, p. 123]) was nothing less than freedom from colonial oppression and education for everybody. The theme of the coat of arms of the Provincia Oriental was a phrase attributed to Artigas: “With freedom I do not offend or frighten” (“Con libertad ni ofendo ni temo”). In 1815 Artigas created in a place called Purificación, where he had his camp, a public school – until then only one existed in Montevideo – called the “School of the Country” (“Escuela de la Patria”) [12, p. 17]. Larrañaga and Pérez Castellano also clearly saw the lack, the felt absence, of public schools and libraries. The book divide was for them not only a question of creating a public library and making books accessible to everybody, but also a fundamental divide between the colonial powers and the people fighting for independence. Books freely accessible “must replace”, Larrañaga wrote, “the lack of teachers” coming from abroad [9, pp. 31–32]. In a sense, he saw this lack as an opportunity for the Orientales to educate themselves even in a situation in which most people could not afford to buy books, which, of course, was not the case of Larrañaga and Pérez Castellano themselves. Both thus saw the necessity of a joint venture between the political and military revolutionary power and civil society to mitigate this deficiency by imagining and creating public schools and libraries.

With the first constitution being adopted on 18, July 1830, Uruguay became an in-
dependent country. The Montevideo Public Library (Biblioteca Pública de Montevideo) reopened almost one hundred years later in 1938 as Uruguay’s National Library (Biblioteca Nacional de Uruguay). Its present building was inaugurated in 1964, and at present it has more than 900,000 books and a digital collection of some 1,500 historical maps and 5,000 images related to the cultural and social life of Uruguay over the past two centuries.

A key educational reform in the country was introduced by writer, journalist and politician José Pedro Varela (1845–1879) with far-reaching implications present even today. One of Varela’s main aims was to create a free, compulsory and secular education system [13]. Varela proposed “that there be a library in the school whose books can be read by ‘grown up kids’ (“niños mayores”) either to take their studies in the classrooms further, or to get the habit of reading.” [14]. In 1847 the National Institute of Public Education started the creation of public school libraries for teachers. In a legal regulation from 1878 school libraries were foreseen for pupils older than ten years. The first school library was set up in 1878 in School No. 5, located in a neighbourhood of Montevideo called Tres Cruces [14]. Twenty years later, rules establishing the role of librarians for the management of such libraries were drafted, but due to lack of funds they were not adopted. During the forties, the first school libraries in rural regions were set up. After the 12-year civil-military rule of 1973–1985, school libraries were no longer conceived of as serving primarily teachers but as being educational centers for the pupils as well. They were not to be a static depository of books, but were supposed to be actively participating in educating pupils instead of existing solely for the use of teachers. Books and journals were made accessible, a reading room was set up and a loan system established. Starting in 1992 this project first became reality in some 23% or 578 public schools out of a total of 2,482 schools and 4,290 out of a total of 16,562 teachers, but lack of funds and educated staff hindered further implementation of these proposals. At the beginning of the new century, there were several initiatives to co-ordinate these activities with similar ones in other Latin American countries. A group called School Library of the MERCOSUR (Biblioteca Escolar del MERCOSUR) was established. In December 2010, a project called “Biblioteca Plan Ceibal” started with a digital library to be located on school servers, allowing teachers to download more than one hundred books without having their own internet collection [14]. This plan, which is roughly outlined in the following section, does not compensate for a lack of a national policy on school libraries and the social problems arising from such schools in low-income areas. Both the “Plan Ceibal” and establishing school libraries are necessary but not sufficient conditions when addressing the fundamental socio-economic divide in which they are embedded. We turn now to both issues, the “Plan Ceibal” and the project “Biblioteca Nuevo Roble”.

3. The “Plan Ceibal”

The ceibo or Cockspur coral tree (Erythrina crista-galli) is the national tree of Uruguay and Argentina. Ceibal is also the acronym of the project “Conectividad
Educación de Informática Básica para el Aprendizaje en Línea (Educational Connectivity of Basic Informatics for Online Learning) or “Plan Ceibal”, a project started by presidential decree on 18 April 2007. Uruguay’s president at that time, Dr. med. Tabaré Vázquez, aimed to introduce digital technology to primary schools, and later on to secondary schools, to create equal opportunities and to bridge the digital divide. The plan was inspired by Nicholas Negroponte’s OLPC (One Laptop Per Child) XO, called later on ceibalitas (little Ceibal) by the Ceibal project. It was unveiled in 2005 at the World Summit on the Information Society (WSIS) in Tunis, Tunisia and presented in 2006 at the World Economic Forum in Davos, Switzerland.

The “Plan Ceibal” foresaw that a laptop be provided to each teacher and primary school child; Uruguay had insisted at the OLPC foundation to be included in their project [15]. With this objective in mind, a commission was created that included the National Administration of Public Education (ANEP), the Council of Primary Education (CEP), the Ministry of Education and Culture (MEC), the Technological Laboratory of Uruguay (LATU), the National Administration of Telecommunication (ANTEL), the Agency for the Development of Electronic Government and the Information Society (AGESIC) and the Agency for Innovation (ANII). In the same year, 2007, the first laptop was handed out to Villa Cardal’s Public School No. 23 (Florida Department).

The “Plan Ceibal” aims at providing digital inclusion with various objectives [15] that have changed over the years but which establish as priority along general lines the access to digital information of school children and teachers, and amelioration of the quality of education by using new technologies and developing a culture of collaboration among the various educational actors, including the children’s families [16]. It was implemented in several steps during the last ten years. First, laptops were handed out to school children in primary schools and to a smaller degree in private schools. The plan then expanded these activities to secondary schools, and servers were created in the schools connected to a central server located at LATU: various access points were established with WIFI connections and Web content and applications. The first laptops handed out had several technical problems, requiring a massive response of technical support; this, and the fact that children did not know how to use the computers, caused delays in the work with computers in the classrooms [15].

The development of the “Plan Ceibal” can be summarized as follows:

**Phase 1**

<table>
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<tr>
<th>Year</th>
<th>Event</th>
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<tr>
<td>2005</td>
<td>Nicolas Negroponte’s OLPC project is unveiled at the World Summit on the Information Society (WSIS) in Tunis (Tunisia).</td>
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<tr>
<td>2006</td>
<td>Uruguay insists at the OLPC foundation to be included in their project after a first negative answer based on the high number of PC requested by Uruguay. The OLPC foundation suggests waiting until the project is launched in bigger countries.</td>
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December 2006  The “Plan Ceibal” is announced with the aim to bridge the digital divide. A work commission is created in order to implement the project. The goal in the next two years is to provide all pupils and school teachers of public schools with a laptop.

April 2007  The “Plan Ceibal” is implemented by presidential decree 144/007 on 18 April 2007.

May 2007  The first PC is handed out at a public school in Cardal (Florida Department)

July 2007  Further laptops are handed out to all public schools of Florida Department.

2008  Laptops are handed out to all public schools in the country except Montevideo.

2009  Laptops are handed out to all public schools in Montevideo.

August 2009  Private schools start using PC.

**Phase 2**

2010  The project “Biblioteca Ceibal” (Ceibal Library) starts with a digital library located in each school server.

November 2010  Start of “Robotics for education” courses in some schools.

2012  Based on a deal with several publishers, the portal “Biblioteca Ceibal” begins to include several text books. Access to such educational material is only possible from a PC of the “Plan Ceibal”.

2013  An evaluation by Uruguay State University (“Deep analysis of effects of the Plan Ceibal”), states that the “Plan Ceibal” had no impact whatsoever on learning mathematics and as well as on reading capabilities by primary school pupils.

2014  Access to the “Plan Ceibal” network is allowed to those who do not belong to it, provided they register with an application installed in the router.

Since its implementation several internal and external evaluations have been done by organizations such as Uruguay’s State University, UNICEF and UNESCO. The report “Deep analysis of effects of the Plan Ceibal”, completed in 2013 by researchers of the Institute of Economics of Uruguay’s State University, analyzed particularly the academic results in the fields of mathematics and reading skills in the period 2006–2012 [17]. The conclusion was that the “Plan Ceibal” had no learning impact in either field due to the fact that the main use of computers is information browsing on the internet. This report, financed by the “Plan Ceibal” itself, had a large media impact because it questioned a promise of quality and improvement of education that was among the objectives of the “Plan Ceibal”. Its president, Miguel Brechner, admitted in a contribution to the newspaper El Observador that he expected these results, the major goal of the plan being to create a technological infrastructure while at the same time underlining that the major challenge was how to integrate the “pedagogical” issues, with a clear hint to the lack of training the teachers received in the use of Ceibal technology [18].
This evaluation comes to similar results as those in a recent UNESCO report by Ignacio Jara, who provides a comprehensive view of the plan and of similar initiatives in Latin America [19]. The project had a budget of some USD 50 mill p.a. or 0.2% of the Uruguayan GDP, encompassing a total of 267,289 school children, 15,870 teachers and 2,131 public schools in 2013 (224,259 students, 17,317 teachers and 321 schools for secondary schools), with only 39% of pupils achieving graduation: the lower the socio-economic level, the greater the number of students leaving secondary school prematurely [19, p. 14]. With regard to digital connectivity Uruguay made a huge leap between 2006 and 2013, with an increase of 25% to 96% of homes with internet access. The “Plan Ceibal” was conceived originally only for primary schools during a period of three years (2007–2009) and 100% coverage of schools using various kinds of ceibalitas that would promote digital literacy and allow child-child, child-teacher, teacher-teacher and child-family school collaboration. After 2009, on a second step, the plan was further developed with regard to its infrastructure, including technical support, distribution of laptops, setting up servers in the schools and developing new teaching material including also secondary schools. The main challenges of this included: problems arising from broken digital devices, the quality of internet connectivity, the service changing gradually from a centralized to a decentralized model and optic fibre being gradually introduced. These changes and enhancements also allowed, for instance, video-conferencing as a new way for learning foreign languages, particularly English. But what was most difficult to address was how to provide the teachers involved in the “Plan Ceibal” the needed ad hoc educational material and platforms such as those needed for teaching mathematics. In other words, the plan grew from a technical platform into a pedagogical content provider system that included teaching material for different school courses. A digital library was created with no clear criteria of the book selection beyond the personal preferences of the person(s) in charge of it, and with no classification; it seemed no professional librarians were at work. The idea of every child using their own laptop at once in the same class causes technical problems and becomes problematic when it comes to ensuring all children focus on what the teacher is projecting, even if such a projector is available. In other words, One laptop per child might be paradoxically an instrument of isolation and a cause for losing valuable teaching time with technicalities, and therefore one laptop per child does not mean that all classrooms are technologically upgraded. Using laptops individually might also not be the best pedagogical means to achieve better learning outcomes when dealing with working groups [19, p. 58]. There is the question of quick technological development that might lead either to an impasse in (not) using old technology or not having enough budget to buy better laptops. Eventually there is the issue of using the information available on the internet beyond what is provided by the platform created by the “Plan Ceibal”, and the quick dissemination of mobile devices, particularly smartphones, that change not only the technical but also the educational context already in primary schools. According to the UNESCO report, these challenges can be addressed if the teachers are prepared to face them, particularly in secondary schools.
where the use of digital devices does not seem to be as widespread as in primary schools [19, p. 61]. Although initially there was a commission instituted by several delegates of educational agencies; the “Plan Ceibal” works with a certain autonomy that makes it difficult to transfer and articulate knowledge among different groups of actors, particularly teachers. The UNESCO report also acknowledges that a stronger emphasis should be put on various kinds of purposes for using the technology; the infrastructure should be diversified since it is not enough to have laptops, as projectors and other equipment are also needed. Last but not least, the report recommends developing digital skills for searching for information on the web. In accordance with this, it is necessary for children and teachers to develop capacities in co-operation with information professionals. As stated in the UNESCO report: “The search for information is a recurrent activity in schools, but it does not generate automatically such capabilities” [19]. In other words, the “Plan Ceibal” should consult with professionals who are able to develop the capacity for searching, using and evaluating different sources of information. There are very few initiatives in this regard, and the “Biblioteca Ceibal” that has no professional criteria for its organization and the non-existence of librarians in public schools. In other words, the digital technology lacking in public schools in 2007 and addressed technocratically by “Plan Ceibal” is not the same as the one of 2017. Another kind of digital divide has emerged, having a profound impact in the way kids learn and communicate, eroding the entanglement of a top-down technocratic structure.

In the Faculty of Information and Communication at Uruguay State University a model called PINDÓ – pindó or queen palm (Syagrus romanzoffiana) was called ybá pitá by the indigenous people who used it to mark roads – is being promoted as a means of furthering informational literacy by a research group called AlfaInfo.uy (Alfabetización en Información. Uruguay). This group aims at “providing a holistic frame of reference as well as a modular scalable tool allowing literacy in information, [and] strengthening reading capabilities within the context of the Plan Ceibal” [20, p. 7] (our translation). This open access application was tested in several schools and can be considered as a progressive initiative in view of the deficiencies of the “Plan Ceibal”, particularly with regard to reading abilities and treatment of information. In any case, as already mentioned, serious doubts remain concerning applications and content as well as the curricula framework within which primary and secondary education in Uruguay takes place. In other words, the PINDÓ model uncovers some deficiencies of “Plan Ceibal”.

The “Plan Ceibal” has an ambivalent impact on Uruguay’s public schools, with both teachers and families. If it can be said, particularly by its promoters, that there is no digital divide in Uruguay, it then becomes a matter of what is meant by digital divide, particularly if its meaning is restricted to a technological infrastructure, not paying attention to, for instance, mobile technology, WhatsApp messaging and social media [21]. If digital divide means that better-off children possess laptops while marginalized children do not, but the latter are provided with a ceibalita, infrastructure and some content instead of books and libraries, then indeed there is no digital
divide in Uruguay. But Larrañaga’s argumentation with regard to the book divide was broader and deeper, and creating a public library based on private donations was but a small step towards the issues raised by colonialism, lack of teachers, lack of economic possibilities for people to buy their own books, and further factors. The public library made all of these divides visible.

If the “Plan Ceibal” is a step toward an inclusive digital culture, the big picture must be kept in mind, including the materiality of the life of marginalized groups, where everything else is lacking. The technological – or perhaps we should call it technocratic perspective – makes us blind to the underlying phenomena concerning, for example, the family situation, deterioration of school buildings, lack of support for school libraries or even the development of digital centres run by the schools themselves instead of being monitored top-down by a state agency. The “Plan Ceibal” aims at changing some of the societal and economic constraints but the ceibalita is not very useful when everything else is lacking in the lives of its recipients. Overcoming poverty and marginalization is a complex and comprehensive task for which digital technology might be of help, provided that the living conditions in which it is inserted are taken into account, without the expectation that they might change due to the use of digital technology alone. Its success depends on the kind of embeddedness envisaged for it, for example by allowing for as many bottom-up local initiatives as possible and connecting various kinds of media, particularly books, which are a very democratic medium.

The Spanish philosopher José Ortega y Gasset wrote: “The democratic society is a daughter of the book, it is the triumph of the book written by a writer about the book revealed by God or the book of laws dictated by autocracy” [22, p. 33] (our translation). This is a reason also for the relevance of librarianship as a profession. Of course, the world has changed since Ortega pronounced in French his speech on “The Mission of the Librarian” at the 1935 International Library Congress in Madrid. But the role of the book and the mission of the librarian remains a main challenge for the digital age. A digital project that does not have an inclusive view of digital technology within the materiality of a school library, becoming part of it and not excluding or ignoring it or even trying to consider it as obsolete, is unsustainable and lacks a solid ontological, anthropological and ethical foundation. It idealizes the digital, expecting from it more than it can deliver. What this project makes clear for a phenomenologist is exactly what it excludes, namely an open bottom-up perspective of the use of digital technology in public schools and public school libraries that is not under the umbrella of a technocratic, closed, paternalistic and top-down steered project inappropriate to foster a culture of freedom and creativity in which children and students learn to use and critically evaluate digital technology within special courses on Media and Society throughout their school education. Books are a highly user-friendly technology, and teachers can make students aware of them. But for that, as in the time of Larrañaga, Pérez Castellano, Artigas and others, it is important that people are empowered to shape their own lives from the very beginning, having access to a school library 2.0 with books, newspapers, journals and computers. The
following case study on creating a school library is an attempt to show a different approach to the phenomenon of marginalized social life, i.e., poverty, domestic violence, drugs, abuses of all kinds, autism, bullying, lack of electricity, and so on. A key task for a critical philosophy of information is to uncover this social phenomenon obscured by digital technology.

What is the mission of the librarian and what is a (school) library in the 21st century? Although the “Plan Ceibal” has made advancements with regard to infrastructure in the last decade, its future concerning education is uncertain. It has generated and imposed an infrastructure in which child-child, child-teacher, child-teacher-family relations concern the functional use of technology with few possibilities to adapt and create new uses, and to overcome the barriers imposed by the unfavourable conditions in which these children are born. What began as a technocratic centralized plan did not succeed in becoming an open decentralized system allowing teachers and pupils to use it creatively and according to their own needs and ideas. This failure is what the phenomenological analysis in this paper aims to unveil. As the teacher Ana María Bavosi argued in 2006 [23], we should analyze the reasons due to which the bad results in reading capability persist and worsen, but we must be realists: this is not a problem that can be easily solved only by providing access to school books, whether printed or digital, or free of charge. What is necessary is to create spaces where citizens can feel themselves free, exercise their duties and fulfill their obligations. It is in this context where the school library plays a key role. This is a theoretical as well as a practical task. The next section explores a bottom-up project that addresses these issues.

4. The project “Biblioteca Nuevo Roble”

In this section we outline the short history of the project “Biblioteca Nuevo Roble” (New Oak Library) and discuss its current implementation, future plans, and its implications for our current phenomenological analysis.

In July 2015, in response to a call for projects sent out by the Institute of Information of the Faculty of Information and Communication at Uruguay’s State University (Universidad de la República), a group of students in the course of Licentiate in Library Science contacted Public School No. 230 and proposed to investigate the possibility of creating a school library from scarce resources.

This proposal was accepted by the director and the teachers of the school but no specific timeline was established as it was difficult to foresee how enthusiastically and creatively the users, particularly the pupils, students, families, would react and what resources could be mobilized, considering that LIS students were doing this project without any financial support. During the first months meetings and workshops were held dealing with the organization of initially scarce printed material, donated by neighbours, in co-operation with mothers and grandparents of the urban
In the district of Puntas de Manga, which is where the school is located, Dewey Decimal Classification as well as a classification system based on colours currently used in children libraries were implemented, and various kinds of activities were held to encourage people to read; for example, at group readings pupils and students could enjoy mothers and grand-parents reading books aloud. A design competition was organized among the school pupils to design a logo to give an identity to the library. The school pupils themselves chose the winning logo and collaborated with the art teacher to paint it on the entrance to the library.

In November 2015, the school library called “Biblioteca Nuevo Roble” was opened for the public in a celebration to which all residents of Puntas de Manga were invited.
The name “Nuevo Roble” has historical significance in Puntas de Manga. Public School No. 230 is officially called “Benita Berro de Varela”. Not far away from it, Bernardo Prudencio Berro, (1803–1868), former president of Uruguay (1860–1864) and the son to Pedro Francisco Berro and Juana Larrañaga, both of Basque origin, inherited his father’s country house called “Los robles” (The Oak Trees). The house was located near the stream Manga, derived from _mangangá_ = bumblebee. Pedro Francisco Berro was married to Práxedes Rosa Bustamante, and their daughter Benita married Jacobo Dionisio Varela, whose son was the educational reformer José Pedro Varela (1845–1879). José Pedro Varela used to sit with his grandparents under the oak, which is still there in the courtyard of the school [24]. One generation before, Dámaso Antonio Larrañaga, brother-in-law to Bernardo and discussed above for his role in the _Biblioteca Pública de Montevideo_, spent his vacations there.

At present, the quarter Puntas de Manga has changed dramatically due to the increasing number of residents; the census in 2011 stated a total of 50,000 persons, 61% more than that of 1996 [25]. In spite of the importance of these changes in the physiognomy of Montevideo, there are no recent data about this process as well as on the facts and persons originating them. Following UNESCO’s *Convention for the Safeguarding of the Intangible Cultural Heritage* adopted in 2003 it is important to generate spaces where the identity and history of a quarter can be preserved. Consequently, the users of the “Biblioteca Nuevo Roble” asked for the creation of a collection of documents to shelter the history of the neighbourhood Puntas de Manga and its personalities. In 2016 the local community supporting the “Biblioteca Nuevo Roble” together with the LIS students held several meetings with the community radio (FH Del Carmen), the Service of Orientation, Consultation and Territory Articulation provided by the Ministry for Social Development, the public school No. 332, the Centre for the Care Kids and Family, and the Commission of the Patrimon...
of the Communal Zone No. 10 to encourage the donation of items. Consequently these institutions provided original documents such as photographs and written as well as audiovisual stories.

Although some progress could be initially done regarding the digitization of these documents, it was soon clear that the testimonies and stories provided by the community should also be recorded as soon as possible. After a software study for the management of digital objects done by the LIS students, the open software Omeka, developed by Roy Rosenzweig from the Center for History and New Media at George Mason University, was selected [26]. This software allows exhibitions to be planned, enables interoperability with other digital collections systems and incorporates timelines and geo-localization. At the aforementioned meetings, the LIS students together with students from the Institute of Communication used oral history methodologies to conduct interviews:

"The interview in the field of oral history is a space for interviewer and interviewee to meet each other and to create together a document. The goal of an oral interview is the conservation and transmission of everyday stories, particularly those which do not leave written traces or only a few. It is not only about recovering what was lived, but also its meaning for the people, something that is difficult to get from written sources. The success of the research will depend on the interviews that are the documentation to be interpreted" [27] (our translation).

Following this, a Web site called “Huella digital” (Digital Trace) was created in order to make the material [28] accessible and make a first step towards a planned open portal for the school library, called “El Roble Digital” (The Digital Oak). The tasks of “Biblioteca Nuevo Roble” and its future digital portal include the downloading of films, the formation of reading clubs and spaces to discuss problems and responsibilities when using the internet, community spaces, workshops dealing with library management, meetings where stories of the neighbourhood are shared, visits to other libraries and invitations to authors and artists. One of the issues currently discussed in the school library community are the “10 Golden Rules of Digital Ethics” developed by master students of Stuttgart Media University (Germany), Institute for Digital Ethics, under the guidance of Petra Grimm and Wolfgang Schuster. Here they are:

1. Disclose as little as possible about yourself.
2. Be aware, and do not accept, that you are being observed and that your data is being collected.
3. Do not believe everything you see or read online and keep yourself informed utilizing alternative sources.
4. Do not condone bullying or hateful behavior.
5. Respect the dignity of others and remember, even in the world wide web rules are applicable.
6. Do not trust everyone with whom you only have contact online.
7. Protect yourself and others from extreme content.
8. Do not value your own worth by likes and posts.
9. Do not judge yourself and your body by numbers and statistics.
10. Once in a while turn off your digital devices and treat yourself to a timeout.” [29]

According to the objectives described so far, the project is planning activities that have as their protagonists the school children and students, where the library invites its users to appropriate the place itself and learn to see it from a perspective not exclusively connected to the reading required for school study. A new kind of cooperation and sentiment of appropriation and common good has been achieved with the community, fostering hopes for a continued future. By end of 2016 a call was sent out to all school children, inviting them to come to the library to build together a time-line to identify facts, places and historical persons of the quarter by providing testimony regarding the history of their families and their relations to the quarter. In doing this they were able to view their neighbourhood with different eyes; for example, they were fascinated when thinking about how Varela, Larrañaga and the Berro family chose their quarter for living, resting and discovering, and using photographs of the neighbourhood, with the help of their parents and the material at hand they were able to relate their current positions to those in the photographs of the past. They also discovered that the school library was the only one inaugurated in the 21st century, and are now writing their own history, which includes this event. The festivities of the Day of the Book were celebrated in the presence of the Dean of the Faculty of Information and Communication, Dr. María E. Urquhart with the projection of a documentary video called “Bibliosoñadores” (Book Dreamers) created by Facundo Sandri and Nicolás Ragni [30].
The Capurro Fiek Foundation (CFF) has been co-operating with this project since 2015 [31]. It is an independent, non-for-profit foundation dedicated to promoting the analysis and ethical evaluation of the social and cultural impact of new technologies and promoting projects and programmes supporting children and adolescents under unequal living conditions. During 2016 the “Biblioteca Nuevo Roble” had around two thousand books, too few books to satisfy the high demand for borrowing, and so donations of children’s literature, art and photography were made by the Foundation. At the end of the year, the library had a collection of more than eight thousand books, and further donations should soon double this figure.

Libraries, particularly school libraries and public libraries from the perspective of and context from which this paper was developed, are part of the solution for social inequity.

The aim of our analysis of the project “Biblioteca Nuevo Roble” is to unveil another perspective of what librarians can be in the digital era, engaged in the community, overcoming stereotypes of, and perhaps real tendencies, to be closed off as mere stewards of books. In any case, the “Biblioteca Nuevo Roble” is a physical place with books and digital technology, aiming to foster human encounters from which further projects can arise. This place is a free, accessible place, in the sense already addressed by founding librarians like Larrañaga and Pérez Castellano, who knew from their own experience what one’s own library means and why this privilege should be extended to everybody. For them the main issue was to foster human encounter, research communities and individual ways of selecting what one likes to read or not.

5. Looking ahead

A school library is a place for free communication, starting from the very beginning of school experience, where a distance can be gained from work in the classroom as well as from one’s own family situation and where new friendships can emerge. In this sense, a school library is a free space imbued by the core virtue of friendship. This can also take place using digital technology, but it should be distinguished from its use in the classroom. Friendship means plurality, respect for each other, openness for other preferences. A free and (user-)friendly library is also a place for public lectures and events, for music, eating together and dancing; therefore, the initial contact with the library can be confusing with regard to the usual clichés and expectations. A school library as presented in this paper binds together interests and questions stated by school children, their family issues, questions of life in the neighbourhood, dreams and everyday sorrows. It is a free space for bottom-up activities, and provides a key way to promote solidarity in a local community. The role of the state is to provide an institutional framework to make this a reality, instead of binding schools without any connection to school libraries into a centralized technocratic digital plan. It would be better to provide public schools and their libraries
with a good computing system and free access, allowing them to decide what to do with it. OLPC, as part of a centralized state plan, is not the solution to the digital divide. It creates a new divide because in the meantime the younger generation is using other mobile devices unimaginable only ten years ago. Digital enlightenment must be based in local places within a living community. Libraries should be communitarian, i.e., enabling school children and students to build their lives themselves instead of being managed and controlled by expensive, centralized, technocratic state projects. The state’s role is not to control and dictate a huge digital network, with its own closed system and an expensive bureaucracy, but to allow diverse forms of the digital to become part of daily life in schools and communities.

Returning to the large questions drawn in the introduction, this analysis of the “Plan Ceibal” and the “Biblioteca Nuevo Roble” aims at a critical understanding of the digital divide by showing what remains hidden behind the ambitions, dogmatisms, economic interests, political struggles, etc. in a given national context. This ontology of information is unlike Plato’s way of abstraction toward ideal forms; ontology is not about what things are but about what we interpret them to be. Interpreters are not isolated, world-less subjects facing a so-called outside world, but a plurality of embodied human beings sharing a world with other living beings. Ethics is grounded in the anthropological difference between who and what we are [7]. Who we are arises from the free human interplay of mutual estimation or contempt in a shared world. We are not our digital data, and the digital world is in the world, not the other way around. Digital enlightenment entails not only learning how to use digital devices, but developing a critical view of the digital age, theoretically and practically. Information ethics is at the heart of phenomenology of (digital) information. The analysis of the projects dealt with in this paper aims at strengthen these theses by letting the phenomena manifest themselves.

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References


