

## **Inclusive University Library: learning and researching environment for users with disabilities**

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### **Abstract:**

*Over the centuries, people with disabilities as been trailing a intricated path, marked by prejudice, segregation and a bad welfares assistance. Nowadays the differences has gained dignity and respect, legal support and positive reception to their specificities. If every human being is unique in the universe, with different fingerprint, voice, and so many other aspects that confer their own identity to each individual, there is no reason to discriminate and isolate people with disability from the global context, as if they were second-class citizens. This article aims to contextualize the implementation of Accessibility Laboratory (LAB) in the Cesar Lattes Central Library at the University of Campinas (UNICAMP) as a living and inclusive organization in a continuous transformation..*

*The methodology used for the implementation of the AL of CLCL was based on exploratory study both in literature and in the identification and quantification of users with disabilities and their information needs (internal and external); in preparing projects for funding from development agencies; the survey and observation of the laws governing the rights of access to information for citizens; the identification and prioritization of Assistive Technology (AT) that establish mediation between the information and the user with disabilities, be it visual, hearing or physical; testing and acquisition of AT allocated in AL; training of human resources of the library; establishing partnerships with teachers, researchers, staff, scholarship students from different departments and areas of the university, similar institutions, NGOs and software vendors, bibliographic materials and equipment. The results obtained with the implementation of the LAB at BCCL, has been immense, transforming the library into an inclusive learning and research space.*

**Keywords:** Users with Disabilities; Inclusive University Library; Accessibility Laboratory.

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Over the centuries, people with disabilities have been trailing an intricaded path, marked by prejudice, segregation and a bad welfares assistance. Nowadays the differences have gained dignity and respect, legal support and positive reception to their specificities. If every human being is unique in the universe, with different fingerprint, voice, and so many other aspects that confer their own identity to each individual, there is no reason to discriminate and isolate people with disability from the global context, as if they were second-class citizens.

Citing as an example, the renowned English astrophysicist Stephen Hawking: he attributes his own fame to the disease with which he has been lived since he was 21 years old, which gradually took away his body movement.

"People are fascinated by the contrast between my extremely limited physical abilities and the immensity of the universe with which I deal with," says with modesty and humor, in his website, the author of 'A Brief History of Time' (1988), a scientific book publication that sold millions of copies worldwide. (HAWKING, S., 2013)

According to Hawking, the human being is so insignificant in relation to the universe, that being a person with disability has no cosmic importance. He States that he has been had an "intense and pleasurable life" and believes "that people with disabilities should focus on the things that disadvantage does not prevent them to accomplish and do not be sorry with the activity that they are unable to perform." (HAWKING, S., 2013, p.137)

This leads us to reflect on the importance of including everyone, without distinction, in the various socio-cultural and educational environments, sports and leisure available in their communities, cities and so on.

This article aims to contextualize the implementation of the Accessibility Laboratory (LAB) in the Cesar Lattes Central Library (BCCL) at the State University of Campinas (UNICAMP) as a living and inclusive organization in a continuous transformation. The LAB mission is giving assistance as much as possible to its users, on their specific needs, in order to support their studies on an equal basis to the other students.

We can attribute as a reference document about libraries for all, the UNESCO Document on Public Libraries. This document was elaborated in cooperation with the International Federation of Library and Library Associations (IFLA) and approved by UNESCO in November 1994, it states that the constructive participation and the development of democracy depend on satisfactory education as a free and unlimited access to knowledge, thought, culture and information. The Manifest believes that freedom, prosperity and progress of society and individuals are fundamental human values that will only be achieved when citizens have access information that enable them to exercise their democratic rights and take an active role in society, as follows:

The public library is the local center of information, making readily available to its users all kinds of knowledge and information. The public library services should be provided on the basis of equal access for all, regardless of age, race, sex, religion, nationality, language or social status. Specific services and materials must be available to users who, for whatever reason, cannot use the regular services and materials, for example, linguistic minorities, people with disability, or who are in hospital or prison. (MANIFESTO OF UNESCO, 1994)

This Manifesto emphasizes the ability of the public library to become a democratic institution that promotes inclusion, equality and the rights of all. According to Pupo (2009, p.52-53) the theme "Accessibility" has been discussed, reviewed and debated both in our country and around the world, however when libraries are taken into consideration, lack of architectural accessibility seems to be the only villain; but the revolution of access to information provided by new technologies and the popularity of Web access broadens the scope and renews the concept of accessible libraries, which requires commitment and inclusive actions of librarians: this requires a change of mentality and respect for differences.

The methodology used for the implementation of the Accessibility Laboratory - LAB of BCCL was based on exploratory study both in literature and in the identification and quantification of users with disabilities and their information needs (internal and external); in elaborating projects for fund-raising from fomentation agencies; the survey and observation of the laws that manage the rights of access to information for citizens; the identification and prioritization of Assistive Technology (AT) that establish mediation between the information and the user with disabilities, whatever it is visual, hearing or physical; testing and acquisition of AT allocated in the LAB; library human resources training; establishment of partnerships with professors, researchers, library staff, assistants students from different departments and areas of the university, similar institutions, NGOs and software providers, bibliographic materials and equipment.

With the implementation of the LAB at BCCL, the results obtained have been beside the expectations. In the last 10 years of operation and continuous improvement, the LAB transformed the BCCL in an inclusive learning and research environment, according to the following steps below:

### **1. Accept the challenge**

The Accessibility Laboratory of the Campinas State University at Cesar Lattes Central library, is a space which was implemented in order to expand its mission to new frontiers. The BCCL accepted the challenge of supporting an accessibility project, which facilitated the conditions of mobility, communication, research and information access, with the purpose of allowing high education students with disabilities to accomplish their studies in an inclusive environment for teaching and learning.

### **2. Legislation**

The creation of the LAB/BCCL is reinforced by the Brazilian and international Legislation, regarding accessibility, inclusion and appreciation of human diversity. It should be noted on the Brazilian legislation the following points:

- The Law No. 9610/98 or copyright law, in its chapter IV, Article 46(d), is clear about the permission of works reproduction, for people with visual impairments, transcribed for braille code system or in other accessible media, but for profitable proposes;
- The Ordinance No. 3,284/99, which ensure the access to equipments and ICT's (Information and Communication Technologies) as well as technical support, aiming to give the same opportunities for all, such as the elimination of architectural barriers and the provision of didactic materials, according to the different needs of people with disabilities;

- The law n° 10,753/2003, which regards to books, accessibility and inclusion, establishing the Books National Policy, instituted up by the culture and educational departments;
- The Convention on the Rights of Persons with Disabilities ratified by the National Congress by Decree 6949/2009 which highlights the "Accessibility" to enable persons with disabilities a full and independent life, ensuring them access to the physical environment, to transportation, information and communication systems, ICTs and elimination of obstacles and barriers to accessibility.

### **3. International legislation**

The Civil Society Declaration to the World Summit on the Information Society (12/8/2003), which calls the committed people in order to build inclusive societies to achieve free access and disseminate information that improve their quality of life.

### **4. Financial resources**

The financial resources for the implementation of the LAB are provinent from the projects fund sponsored by the São Paulo State Research Support Foundation (FAPESP) and the Provost of Undergraduate Studies (PRG) from Unicamp University. The project was created in 1998, according to the NBR9050 (Brazilian Association of technical norms) and the LAB/BCCL began its activities in January 2003, with a legally blind student , who entered in the Postgraduate Program in Music at the Art Institute.

### **5. Multidisciplinary/Goals**

The LAB is a space that congregates work groups whose participants are administrative employees and researchers directly connected to the Laboratory of Accessibility, faculty members from various Unicamp departments and or Institutes, such as Education, Arts and music, computing science, Civil Engineering and Urban architecture, Electrical/Computing Engineering , Mechanical Engineering, Informatic Center Applied to Education, among others.

The main goals and tasks attributed to this team are the followings:

- Support the specialized educational service in higher education; guiding users in bibliographic research and scientific papers formatting; make available to all users equipment for studies, research and leisure purposes;
- Interact with professors from the departments that have students with disabilities, in order to prepare and adapt bibliographical materials and question paper/quizz;
- Instruction to users for operating the available ICT's (information and Communication Technologies)and assistive technologies;
- Provide as much as possible accessibility to users with disabilities at Unicamp Libraries system, including information sources via Web;
- Compliance with pertinent legislation regarding the access to information;
- Provide a inclusive and accessible environment to students and researchers with any kind of physical or cognitive disabilities;
- Stimulate and spread the use of new technological tools;
- Interact with all unity department library that make part of the Unicamp system libraries (SBU) as well as other external University libraries , in order to subsidize and propose inclusive actions;

- Promote thematic workshops on inclusion and accessibility to the employees, University's Alumni and external community; offer services and products to users within and outside the University;
- Encourage students' autonomy for producing themselves their accessible material;
- Contribute to the scientific production and accessibility practices fostering and disseminating inclusive practice.

## **6. Establishment of the mission**

The Mission of the LAB/BCCL was instituted with the objective of providing specialized service and access to information, headed for the admission, permanence and maintenance of students with disabilities, as well as students participation in social activities within the academic environment, along with employees and faculty members, extending its products, methodologies, and services to the outside community as well.

## **7. Sectors and services in the Accessibility Laboratory - AL**

### **Access to information:**

- Area for the reception of users and as well as implementation of services, such as, reading and scanning of academic texts, the preparation and production of required materials, evaluations and Teaching Support.
- In other space, also works a pedagogue who welcomes the childish public (kindergartens pupils from the University's preschools and others city's schools), through telling stories whose characters have some disabilities, emphasizing the importance of respecting human diversity;

### **Braille**

- Musicography or music notation system: This area was established in cooperation agreement between the Accessibility Laboratory – Lab, and the Institute of the Arts;
- It has also an sector of media and audio description, collection of digital and audio books in MP3 format, the project volunteer readers to record books with human voice instead of screen readers sound, the project "Seeing" with the hands", a project that aims at developing a method for producing 3D materials for the education of visually-impaired children and teen-agers, with the use of digital fabrication techniques through 3D printers. The project aims at making it viable for school teachers to digitally produce their own custom pedagogical 3D materials digitally-fabricated scale models. Besides that the Lab also offers a small collection of braille materials, reference works in digital media, such as dictionaries, translators, tactile objects made in ceramics and or plastic depicting objects used in everyday life, among others.

## **8. Assistive technologies**

Adapted computers with screen magnifiers, braille printers, 3D printer, scanners, Braille display, various voice softwares and other required specific equipment.

## **9. Human resources**

The composition of the human resources – employed staff is divided into two specific groups: the first group is permanent, composed by Librarians, Educators, researchers/Professors and some

supporting University students . The second group is formed by experts from different areas, as described above.

## **10. Scientific Production**

- The Accessible Route-tactile and sound Models, written manual about how to live with the differences";Project's Web portal "we all – Unicamp Accessible";
- Publication of books: such as "Unicamp Accessible" and "accessibility: discourse and practice in daily life of libraries", 2006, online version; 2008;
- Printed version; the book: "Actors of Inclusion at the University: training and commitment", which subsidized the extension course: "Actors of Inclusion at the University: commitment and competence", in 2011;
- Participation in the Working Group of the MEC (Education and cultural bureau) for production of Issues from the collection "Special Educational Care from the perspective of inclusive education": ESA COLLECTION-"knowledge and practices of special education in the perspective of inclusive education" – Issues: resources for students with low vision; offered in Accessible digital format;
- Publication in the journal "Management & Connections", from Federal University of Espírito Santo State, Volume 0, n° 3, p. 92-106, " Accessibility on different viewpoints: covered paths by visually impaired researchers"2014;
- Oral communication in the XVIII national seminar of university libraries: "The University Library and the external community: accessibility to the bibliography for the admission exam of the Unicamp". 2014;
- VII SENABRILLE (National Seminar of Braille Libraries), from November 27 to 30, held at Unicamp Convention Center, with the theme: "Libraries: accessible spaces to multiple users";
- Permanent Forum on Science and technology: "Universal design, assistive technologies and accessibility: impacts and perspectives", held on September 6, 2012, at Unicamp Convention Center; Science and technology: "Accessible Libraries and high education", in March 7, 2013, at the same place.

## **11. Projects Participation**

- Project GEPRO/APRIORI: priority treatment and inclusion in libraries – (An undergraduate final paper defended by a Librarian from Central Library Cesar Lattes, in the program 'Excellence in customer service'. This work was the starting point for accession of five librarians who made the course Process Management – Class VII. The group final work was the project 'APRIORI', that aims to establish unified process priority assistance to the customer/user, to provide specialized services to students with disabilities;
- Partnership with CNRTA (National Reference Center of Assistive Technology), which is part of the program "Live without limits", sponsored by the Brazilian Federal Government, that provides the implementation of the national reference center for assistive technologies (CNRTA), physically allocated in the Centre of information in technology 'Renato Archer' (CTI), in Campinas City - São Paulo State, Brazil;
- Library network accessible: is in the progress the proposal for the creation of a network of accessible university libraries from UNICAMP, PUCCAMP, FAJ and UNESP, to share accessible and inclusive products and services;

- Summer course in Science and Art. Edition 2011: "Constructing the difference with a difference: accessibility book";
- Summer course in Science and Art. Edition 2012: "Who tells a tale raises a point: the Braille system points can turn a tale";
- Summer course in Science and Art. Edition 2012: "This is the point," cartoon movie;
- Summer course in Science and Art. Edition 2012: "Comic book Collection", formed by three comic books which deal with access to information, research, preservation and accessibility in the library;
- Summer course in Science and Art. Edition 2012, 2013 and 2014: "Accessibility of the bibliography assigned for the UNICAMP admission exam";
- Summer course in Science and Art. Edition 2015: "Assistive technology: audio description of rare books and Special Collections", and "Prototyping and library: accessibility to students with visual impairments";
- Works capacitation from CECOM (Community Health Center) Unicamp: "Accessibility: you can make a difference!!! Legal aspects, requirements and assistive technologies", 2013;
- Seeing with the hands: teaching concepts of modern architecture for the visually impaired students, with digitally produced models; and Junior scientific initiation, both developed in partnership with the Civil Engineering, Architecture and Urbanism (FEC Unicamp) – 2013 and 2014;
- Realization of audio description course - 2013.

## **12. Advisory and technical supports**

- Advising to institutions and events of UNICAMP, seeking general information about products, services, and assistive technologies to generate similar projects;
- Exposition of hardware and specific software for scheduled visits to groups from other universities library as well as public and private institutions aiming to replicating the initiative;
- Several Interviews for research of undergraduate and postgraduate students. Lectures, short courses and communications on events, invitation (SNBU, UNESP-MARÍLIA, UFRN, SIMTEC, MEC, UFCE).

The results obtained with the implementation of the LAB at BCCL, has been immense, transforming the library into an inclusive learning and research space, offering to people with disabilities, the same services and products that are offered to other users, such as information, communication and assistive technologies, which enable the inclusion of people with disabilities in academic life by facilitating access to information.

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