






doi: 10.20396/rdbci.v17i0.8652821/e019012

## UNIVERSITY LIBRARIES: A THEOREICAL PERSPECTIVE ON INNOVATION IN INFORMATION SERVICES

BIBLIOTECAS UNIVERSITÁRIAS: UMA PERSPECTIVA TEÓRICA  
SOBRE INOVAÇÃO EM SERVIÇOS INFORMACIONAIS

<sup>1</sup> Thais Batista Zaninelli   
Universidade Estadual de Londrina  
Londrina, PR - Brazil

<sup>2</sup> Cibele Andrade Nogueira   
Universidade Estadual de Londrina  
Londrina, PR - Brazil

<sup>3</sup> Ana Luísa Moure Peres   
Universidade Estadual de Londrina  
Londrina, PR - Brazil

### Correspondence

<sup>1</sup> E-mail: [thais.zaninelli.uel@gmail.com](mailto:thais.zaninelli.uel@gmail.com)

**Submitted:** 28/06/2018

**Accepted:** 09/01/2019

**Published:** 24/01/2019

### Anti plagiarism Check



e-Location: 019012

JITA: DD. Academic Libraries

**ABSTRACT**

The proposal of this article of theoretical nature is to analyze in the literature of the last five years, what is discussed about innovation in the context of university libraries. It was researched in national and international databases from 2014 to 2018 articles related to this subject, as well as on innovation, in a general way. The objectives were to characterize the theories around the innovation process, to understand the evolution of the concept of innovation in different contexts of society and in Brazil, and to conclude with a review about the innovation process in the scope of information services, especially those offered in University Libraries. It is noticed that in Brazil, even the process being slow, the University Libraries are investing in new services focusing on the change of posture of its users. Many libraries, for example, already offer collaborative study spaces, in addition to the individual ones, establish vertical partnerships with information technology companies and cultural centers, in order to meet the current needs of the generation formed by digital natives.

**KEYWORDS**

Innovation. University libraries. Digital natives. Information services. Innovation in libraries.

**RESUMO**

A proposta desse artigo, de natureza teórica, é analisar na literatura dos últimos cinco anos, o que se discute sobre inovação no contexto das bibliotecas universitárias. Pesquisou-se em base de dados nacionais e internacionais de 2014 a 2018 artigos relacionados a esta temática, bem como sobre inovação, de uma forma geral. Os objetivos foram caracterizar as teorias em torno do processo de inovação, entender a evolução do conceito de inovação em diversos contextos da sociedade e no Brasil e finalizar com uma revisão em torno do processo de inovação no âmbito dos serviços informacionais, em especial os ofertados nas Bibliotecas Universitárias. Percebe-se que no Brasil, mesmo o processo sendo lento, as Bibliotecas Universitárias estão investindo em novos serviços focando a mudança de postura dos seus usuários. Muitas bibliotecas por exemplo, já oferecem espaços colaborativos de estudo, para além dos individuais, estabelecem parcerias verticais com empresas de tecnologias de informação e centros culturais, de modo a atenderem as atuais necessidades da geração formada pelos nativos digitais.

**PALAVRAS-CHAVE**

Inovação. Bibliotecas universitárias. Nativos digitais. Serviços Informacionais. Inovação em bibliotecas.

## 1 Introduction

The need of innovation is based on the desire that the organizations have that keep themselves competitiveness, in the case of private institutions, or to keep sustainable, in the case of public organizations. The search for new operation areas, formation of a new target public, agility of process, incorporation of new services are responsible factors that promote the development of innovation.

The term innovation was initially associate to products that presents cutting-edge technology, is also used to show that a process or a management bring new elements, that put the product, the company or even a person forward of your activity sector. Therefore, the innovation is considered the principal lever in the process of creating value. (PALETTA; PALETTA, 2008).

In the information environment in constantly evolution which are insert the Academic Libraries (ALs), the strategies in relation to innovations in the services provided must be very well planned. That way, know the profile of your public and offer products and information services that go against their necessities contributes to the improvement in relationship with the user, brings benefits through efficient management of resources and creates a conducive environment to innovation and creativity (BRAGANÇA *et al.*, 2016).

The information service is a set of services offered by Information Units, such as: research, document loan, bibliographic survey, selective dissemination of information, among others (SOUZA *et al.*, 2014). This services, they differ depending on of the Library type and the public served. However, the goal of information service is to ensure that all information required be satisfied therefore, need to count with specialized people in the search of information, with a useful collection of search, be it in the physical limits of the organization that it's linked or available beyond this limits (ROZADOS, 2006 *apud* PASSOS, 2016).

The information services have characteristics of intangibility, volatility, intensive use of technology, provision of services Inter organizational and still some characteristics of singular nature, such as: Network services, Interactivity and external character of the network (DHOLAKIA; MUNDORF; DHOLAKIA, 1997 *apud* PASSOS, 2016).

In this sense, the technological scenario has demanding of the ULs increasingly the need of innovation in products and services available. In this sense, comes up the challenge that, though traditionally linked to support the teaching and extension through their collection, the ULs are modifying this stereotype looking for making value to the set of products and services offered to academic Community, that, in its turn, is formed currently

for the generation of digital natives. The generation of digital natives covers people that born in the last decades of the twentieth century and covers the Generation Y and Z. They are individuals that assimilated the technology and have grown with it, according to Tapscott (2010).

In this context, there are a challenge when if it's treat innovation in the context of the ULs, once that aren't not even all the collaborators that understand the need of innovation and how its affects the creation of value, this people many times can't see beyond the traditional beliefs around the concept of library and about the importance of innovation in this spaces. Many times they interpret the concept of innovation that is about the development of new products or a new process of manufacturing, reaching new interpretations that are essential to the high performance, key factors to the success of private companies, that aim profit, in which the libraries are not inserted. (PASSOS, 2016).

Therefore, this article has with principal goal to analyze the discussions that are being performed around the process of innovation in the context of ULs and in what way the informational services has evolved taking into account the new demand of the users. So, this study is classified as theoretical (MARCONI; LAKATOS, 2007) and have with base the bibliographic research, that possibilited the study and the analysis of an extend literature review related to the theories about innovation, evolution of the concept of innovation, innovation in different contexts and in Brazil, well as the innovation in ULs.

The research has character theoretical had with base the bibliographic research (MARCONI; LAKATOS, 2007), from of study and analysis of a literature review related around the theories about innovation in informational services, was realized a bibliographic survey in nationals and internationals databases, by means of the Portal da Capes, in the base LISA and Google Scholar in the months of April and May de 2018, in which the search was focused in articles published between the years of 2014 and 2018. The principals key words used was: Innovation, Libraries, Academic Libraries, Development of New Services, Services and Informationals Products and Digital Natives.

The questions that guided this study was: how are understanding the theories of innovation? The concept of innovation evolved? In what environments is applied the process of innovation? In the context of ULs, are the librarians and leaders qualified to understand the needs of innovation in reference of the provided services?

## 2 Innovations Theories

The process of innovation is related directly with the application of knowledge in different contexts as, for example: in the solution of problems and organizational challenges, in the process of development of competitive advantages in the actions to put itself forward possible future situations, among others aspects (VILHA; QUADROS, 2007).

The innovation can be understood according with their object: introduction of products; in the market, processes; marketing actions; organizational processes, according with their level: radical, semi-radical or incremental and from where is generated: internally ou externally (MACEDO; MIGUEL; CASAROTTO FILHO, 2015).

According to Ferrão (2002, p. 17): “The innovation is considered today by many as principal factor that allows to societies and to economies become solidly more developed”. In this perspective we can to perceive how much the innovation can be related with the question of the institutions to keep themselves in the activity area that they act in a way that they can continue being attractive to their publics against the competitiveness of the market

In this sense, the demand for products or services is what boost the innovations, be both the demand for improvement, as to creation of new products and services. We can observe this in the Oslo Manual (OCDE, 2005, p. 53) in the moment that highlights that “If the companies don’t believe that there is demand enough to new products in their market, they can decide not innovate or postpone their innovation activities”.

Basically the innovation can be divided in cycles, being every cycle composed to three phases: production, diffusion e adaptation of new knowledge (FERRÃO, 2002). The phase of **production** of innovation is responsible to investigations that point failures or necessities of improvement in a product, service or process. The phase of **diffusion** is the moment that the innovation produced are disseminated to propagate the innovation. Lastly, the **adaptation** is the phase where the mistakes are corrected, implemented new ideas that comes up to improve the initial ideas with basis in the experience of the involved in the process of innovation.

The innovation theory is characterized to your worry around the diversity, in this theory we can observe the following dimensions where is possible identify differences between the institutions: management cultures; technological and financial capacities and fundamental skills; specialization of products; ways of organization; production methods; innovation and design styles. (BRASIL, 2008).

Still in this sense, the theories of innovation related themselves with factors as: the reason of the companies innovates, the strengths that conduces to innovation and the factors that obstructs the innovation. The organizational culture, knowledge management in the organizations and the innovation processes, also are considered importante elements in the innovation theories. (OCDE, 2005).

## *2.1 Concept evolution*

The innovations, according says Bloch (2011, p. 14, our translate): “[...] must be new to your organization, though they can be developed by others. They also can be results of decisions inside your organization or in answer a new regulations or political measures.”

This way, the innovation is related to appropriation of new knowledge and its application in the resolution of problems or new or improve products and services offer. The innovation, therefore, can come when there is a discontent, a restlessness, in relation with something.

Initially the concept of innovation was related to the industry, that is, in the process of development of products, this way your connection was associated with the economic development conducted by manufactures. Now the services was characterized by the use of technological innovation produced by manufactures, not being, therefore, considered something that add value and that wasn't necessary to have a higher qualification to use it.

This view that we had about innovation, starts to change, since the services sector starts to highlights in the contemporaneity: “In today's economies, the traditional view is put in check by empirical investigations that identified the intense innovation in service activities, including in sectors that don't presents to profit [...]” (KON, 2016, p. 15).

In 1889, Alfred Marshal had the idea that the cooperation between individuals companies to supply the Market was consider very advantageous, what confirms the premise that colaboration and innovation are always related. This idea was being developed and improved with the pass of time, walking through theoreticals as Schumpeter in 1964, Dáhmen, in 1970 decade, among others. Yet in 1993, James Moore starts to consider innovation as part of a ecosystem through relationships creation between the companies that possibility a mutual support in market, generating integration between theirselves and with the environment which they are inserted (KON, 2016, p. 16).

This way, it's possible undrestand that the concept of innovation, in your genesis, although it was transformed with the passo of time, still can be considered current, once that

we consider the organizations as integrat parts of this ecosystems are taking account the cooperation and colaboration that it's possible to see in the current innovation processes.

## 2.2 The innovation in the different contexts of Society

Due to economy's growth of the services sector, the innovation process in this context has got highlight and in the current sceneario, once that the services are domain the market, there aren't a clare diferentiation in respect what can be considered product or service. The user experience is what has taking into account, that means, being this experience from the use of a product or a service (OCDE, 2005).

According to Cunha *et al.* (2016): The studies of innovation in last decades toggled the hegemonic focus of approaches about manufactured products to the emphasis in services innovations. This is justified, once that, many products (physical goods) has associated services, that many times, this services generates more value to the user that the product itself.

One of the places that innovations occurs are the universities, because the knowledge produced in this institutions are products of researches that look to explain certains facts and propose solutions to improvement. The researchers have a curious view in relation their research objects, in attempt to understand it better inside the context in which are inserted to be possible to propose some intervention.

This way, many private companies institutes partnership with the universities, with research investiments that benefits both: as well the companies with the getting of knowledge produced by researches, as the own university with the getting of resources (BRASIL, 2008).

Innovations on health area are also considered of sum importance, once that it search for solving problems of economic and social order. According to Tenório, Mello and Viana (2017, p. 1442) the innovation in health: “[...] is also saw as a political and social process for making part of the strategic planning of the country, that aim to national reduction of dependence of inputs to health produced in outside, reforcing the political economy of the country”. This innovations generates an economic independence, because there are many researches of quality applied in the country, and excellents researches that produces useful knowledge in the solving problems, as was the case of the research that associated the zika virus with microcephaly, that was winner of the Péter Murányi<sup>1</sup> Prize.

<sup>1</sup> O Prêmio Péter Muranyi é realizado anualmente, e, abrange várias áreas do conhecimento, alternando entre os temas Alimentação, Educação, Saúde e Ciência e Tecnologia. O objetivo da Fundação Péter Muranyi é premiar e reconhecer iniciativas que, de maneira inovadora e comprovada, viabilizem vida de melhor qualidade para as populações de países em desenvolvimento. Informação extraída da página da fundação: <http://www.fundacaopetermuranyi.org.br/downloads/folder2018.pdf>.

In the Oslo Manual the activities of services innovations many times aren't easy to be separated from innovations in product, because the production and consume can occur simultaneous way, being the services can be considered as a continuous process generally turned into incrementals innovations (OCDE, 2005).

The public sector to possess too much standards and regulations that rules such institutions, many times, ends being associated with something very closed, with too much bureaucracy, where we can't find much freedom to adopt new practices, however this reality has changed, because it's possible to find in various contests and incentive prizes to the institutions that adopt innovative practices.

The development of innovative actions in this sector is made a different way than private initiative. On the one hand, such institutions don't promote an innovation culture, that be open to risks, the budget generally is more reduced, the own public servants came from a culture which the aversion to changes, being this actors that can be considered as barriers of innovation. On the other hand, the application of innovations in public sector is noted as being based in empirism than in the theoretical conceptualization of innovation (FERREIRA *et al.*, 2015).

### *2.3 Innovation in Brazilian context*

The economic growth of one country is intimately related to your capacity of innovation, because due to the current patterns that rules the international scenario, the innovative process becomes an essential factor to the competitiveness between the countries, being indispensable to the growth and to surviving of the majority of business.

In Brazil, this is a recent process, because until the 1990 decade there wasn't big investments in the technological development, since the economic root of the country is based in agrarian sciences, turned into the agribusiness. Therefore, in last years, the Brazilian government has implemented public policies looking for to incentivate innovative activities in companies, as the Technological Development Industrial Program (TDIP), created in 1993 to stimulate the technological innovation in the country (BRASIL, 1993).

Against the incentive, new laws were created in Brazil searching to provide a favorable environment to innovations, with the introduction of Innovation in Federal Constitution in 2015, adding dispositives that update the treatment of activities of science, technology and innovation (BRASIL, 2015). Oldest laws, as the Technological Innovation Law, approved in 2004, stimulates the private companies to work together with academic institutions and technological institutes (BRASIL, 2004).



Still in this line, The Computing Law grants fiscals benefits to Information Technology companies to elaboration of projects of researches and development (R&D), and the Good Law, from 2005, reduces the taxes of conducting companies of researches and technological innovations (BRASIL, 2001, 2005).

There was also the starting of programs that stimulates the innovative process, as the Major Brazil Plan, from 2011, that was looking for to defend and to turn more competitive brazilian industry against the international market, about the motto "To Innovate to Compete. To Compete to Grow" (BRASIL, 2011), and the project "To innovate to Grow", form 2017, approved by the Interamerican Development Bank (IDB) and realized by the Studies and Projects Funder (Finep), affiliated to the Science, Technology, Innovations and Communications Ministry – (STICM). According to Finep (2017), this program to search to enlarge the produtividade of the companies with privates investiments in innovation, so in priorities sectors, as the information technologies and health, as in micro, small and big companies, beyond of innovative enterprises of technological basis and open innovation initiatives.

Other propose of government to incentivate innovation and technological, scientific and intelectual growth in various areas of knowledge was the creation, in 2010, of National Innovation Day, celebrated in 19 of october, where the institutions of technological and scientific development realizes activities turned into the innovative process in their respectives fields (BRASIL, 2010).

By having in view the need of to develop the economy of Brazil to a higher level, the National Innovation System (NIS) is essencial in the conquest of this objctive, in measure that gather various institutions of the public and private sector that contributes to the creative process and propagator of technologies and innoavations.

The innovative capacity of system is determinated by the level in relation between the various sectors that composse it, being the principals: the State, the universities, the research institutes and the companies, that have the function to develop the final product (INSTITUTO IBMEC, 2016).

From the three categories that are divide the Innovation Systems (complete, intermediary e incomplete), Brazil is found in the third, characterizing by minimal structuration of technological and scientific system and low contribution to production sector of country. In the referents terms to brazilian dynamic, can be noted low amount relative of people and spends envolved in system, what revels ineficiency in relation to the index of invention and scientific publication patents (ABRITA, 2018).

As promoter organ in innovation order, the National Association of Promoter Entitys of Innovative Enterpreunership (Anprotec), created in 1987, leads large parts of the initiatives of the sector. The principal goal of the Association in long term is “to consolidate the formation of a strong and competitive industry based in knowledge [...] contributing to the innovative enterpreuner colaborates of a decisive way to the sustainble development of Brazil” (ANPROTEC, 2018), gathering about 370 associateds, as companies incubators, technological parks, accelerators, coworkings, teaching and research institutions and public organs.

This institutions are considered innovation environment: favorable spaces to technological innovations that delivery to society plataforms of development that are se differentiate to promote a bigger interaction between academy, companies and government. This three elements constitutes the triple propeller model, which the *government* promotes an institutional arrangement conducive to interaction between academy and companies (can act as financier through their foment agencies), the *academy* trains and transfers knowledge and technology, and the *company* transforms this knowledge in products and in economic value (ABREU *et al.*, 2016).

All this spaces are importants in the innovative context, therefore, the incubators of companies and the technological parks are fundamentals to consolidate public policies of incentive to innovation, attributing competitiveness and sustenaibility to brazilian enterpreuner and promoting the articulation necessary between the company and the scientific and technological knowledge.

It is also important to highlight, that this spaces stregthen and qualify the industry and the outside commerce of the country, from the moment that they are innovation sources so to the inserted companies in their estruturas as to those that are outside from this innovation ecosystems, beside attractive projects and research centers and development of multinationals to Brazil (ANPROTEC, 2018).

A study realized in 2011 by Anprotec, together with the Science, techonlogy and Innovation Ministry, identified 384 incubators of companies in operation in Brazil, housing 2.640 companies and generating 16.394 work stations. Of this companies, 98% innovates, being 28% with focus in local scope, 55% in national and 15% in global. (ANPROTEC, 2018).

Still according with Anprotec (2018) this incubators offers infraestructure and management suport to the enterpreuners, to they can develop and tranform their innovative ideas in well succeed enterprises. Among the various incubators of the country, highlights the following: Innovation Enterpreuner and Technology Center, (IETC), linked to State

University of São Paulo; Genesis Institute, linked to Pontifical Catholic University of Rio de Janeiro; Inova, linked to Federal University Federal of Minas Gerais and the Technological Development Support Center (TDS), linked to Brasília University (UNB).

The technological parks has as objective the economic and social development of the region that they are located, having with fundamental matter the economy based on knowledge, amplifying the offer of new technologies and creating a cooperation space between the entrepreneur organizations, the community, the government and the research and development institutions (SARTORI *et al.*, 2014).

The bigger technological park of Brazil is the Porto Digital, located in the Recife (PE) historic center (PE), that acts principally in softwares and services area of Information Technology and Creative Economy, like this as in the sector of urban technologies. The Porto Digital houses 267 foment companies, organizations and Government organs, beside to host the incubator of companies Cais do Porto (PORTO DIGITAL, 2018).

Although of the various initiatives that can be find in the brazilian innovative sector, as the spoken previously, some important considerations must be made to respect of innovation in their current situation, as points Carvalho *et al.* (2017, p. 149) in your research:

Other conclusion of the research is the necessity of a renewed agenda to innovation in Brazil, less dependent of the governamental support, that must continue to exist, but not can be more considered as a driving force. The innovation agenda requires a amplified perspective of the national entrepreneur that the innovation left to be a luxury to become a fundamental necessity to the surviving of the organizations. Such mental model change requires the understanding that the innovation initiatives don't be limited to incremental projects of imediate return very well calculated, but also in investment in R&D to generate disruptives innovations.

That means that, although the great contribution coming from innovation in the way that is realized currently, is important to emphasize the need of changes in the scenario of national innovation, which the recognition of your indispensability and a smaller dependence of the State being intrinsic to innovative process.

### 3 Innovative Libraries and Innovative Services

The Academic Libraries (ALs) are culture and learning centers, that means, dynamics and interactives organisms that have as principal objective to mediate the relation between the producers and the consumers of scientific knowledge, being essentials in the process of your elaboration, beside offer access to information and support in the process of teaching, research and extension, the triad that composes the fundamental axis of brazilian universities:

The university library, therefore, represents the space destined to offer of products and various services, attending, primarily, the university community, constituting as a space that attempt, immediately, the activities of teaching, research and extension of university (SANTA ANNA; COSTA, 2017, p. 42).

To being includes in a susceptible scope to constantly changes, the ULs must to attempt to the growing demand of new products and informationals services, having the innovation as principal strategy to offer they with higher quality pattern, based in the Information and Communication Technologies (ICT) and satisfying the differents needs of their publics. To Silveira (2014), this technologies are responsables to great part of the processes of production and recuperation of information and knowledge in actual contexto of information society, characterized by extreme dinamicity, speed and intense informational flow.

Although the goal of the ULs to keep the same with the pass of years, the proceses used in the offering of services and products changed, since the techonological changes caused alterations in such unities, identified by Silveira (2014, p. 73) as “the increase of the informations flow, the fluidity of interpersonal relations, the automation of various processes and products, the smash of paradigmes and the arise of new concepts as the globalization and the information technologies.”

Diferently of previous times, the physical space of the ULs is not reserved only to the reading and to storegement and maintenance of bibliographic collections: it is shared with computers to propiciate to students the possibility to realize their research using the internet, and not only the collection’s books. Other innovation present in ULs is the offering of mobile internet, allowing to the users to access the internet through their personal dispositives pessoais, as laptops e celphones.

The changes caused by ICTs, as the search for services in digital space, for exemple, taking to a virtualization of the Academic Libraries, what, according Santa Anna (2015), doesn’t excludes the work realized in person, but yes enable the emergence of a hybrid library, that houses so the physical space as virtual, offering various ways of attendance to users, to which that are necessaries informations more complexes and faster answer times. To Saraiva and Quaresma (2015), the hybrid libraries, beside based themselves in technological and innovative processes, must de colaboratives with focus in the institutionals teaching-learning processes and in the involvement with the community, looking for become a Learning and Investigation Resouces Center (LIRC).

The ULs incorporates the resources offered by information and comunication technologies in the way how offers their services and products, looking Always to satisfying

the needs of the users in a eficiente way, not only effective. In websites of the libraries, is noted the presence of numerous tools and search methods, like this as alert services and Selective Information Dissemination(SID), that possibilitis the communication and the marketing of the unities together with the users (SANTA ANNA, 2015).

On the mains innovations of ULs is the centralization of services provided in diversers profiles of their users, in ally to strategy way of the university and the conjunctrual trends of information society. The ICTs, essenciais to the new model of ULs, turn possible the production and development of own contents, and when applies management and preservation of collection, thiss technologies possibilitis a better time management, as saw in authomatic indexation of digitals documents and in authomatic translate projects, according Saraiva e Quaresma (2015).

This authors also highlights others innovative trends in ULs, as the digital curation, tthat search to ensure the sustaineblity and the legitimacy of the scientific datas to posterior moments, and the cloud computing services, that offers more mobility and portability in the access to information and facilitates the sharing of scientific datas, beside of integrates the libraries to the global network information.

It's Worth to point out that, to have a contínuos improvement in the process of difusion of knowledge in brazilian Academic Libraries, is necessary that the information professionals, beside have specific technical knowledges, be conscients of their role in formation of locals, regionals and globals identities (NUNES; CARVALHO, 2016), having technological, pedagogical and comunicatives skills. Beside that, this professionals must be flexible, with skills in recuperation, organization and storage of information, as printed sources as electronics (BRITTO; VALLS, 2015).

In Brazil, are found some examples of innovative Academic Libraries, that looks to amplify their services with basis in the users' needs. Some libraries that can be citeds are: Federal Academic Library of Goiás (FUG), the Federal University of Santa Catarina (FUSC) and the São Paulo University (USP).

The System of Libraries of FUG (Sibi/UFG) is composed through Central Library and nine Seccionals Libraries, and has as objective to promote the access to services and informationals products informacionais with excelency, following the techonological, social and cultural transformations and attempting the needs e expectations of FUG (FUG, 2018). One of the innovative services available to the system is theUsers Training Program, that offers to university community the necessaries knowledges to the search and use of informationals resources, offering coaching and training in the use of the library, of the portal

de periódicos CAPES and of online information sources, beside of guide the normalization of academic works (FUG, 2018).

The System of Libraries of FUSC is composed through Central Library and ten Sectorials Libraries, and counts with various automated services, as: e-books, *Web* conferences, data bases, meta searchers, distance teaching, digital inclusion space, virtuals libraries, beside of online service to reference and TVs distributes in libraries (FUSC, 2018).

Still according to FUSC (2018), the UL FUSC have the service “Things Library”, that offers the lending of items beyond the books, as calculators, umbrellas, laptops, mobile chargers and adaptors, among others. Other innovative service offered Through UL FUSC is *BookCrossing*, that is the practice that let a book in a public local (in that case, a reserved space library), to be found and read through other users, that must do the same.

The Integrated Libraries System of SPU (SIBiUSP) counts with 48 libraries, and offers the service of Lending Between Libraries (EEB), that available to users of SPU the lending of works localized in other institutions libraries. The system also allows that external users requested the lending of existents works in SPU libraries, since being from the vinculated libraries and that provides this service (SPU, 2018).

Beside this, according to SPU (2018), the SIBiUSP offers products to their users, as the mobile app SIBiUSP, that allow realize searches to one book, to find the SPU library that have it and to check their available. Other offered function is the consult to lending items list, to lending historic and reservation list, beside to possibility the reservation and renovation of publication through app.

## 4 Final Considerations

We can infer that we are beyond the information, the knowledge, we're in the innovation age. In this context, was fundamental to look to informational services innovation and, in this study, the focus is in ULs, that must, beside to improve in presencial products and services provision, also to focus on technology, to attempt the new users demand.

The UL is a space that allows the dynamism and the change of contents and information between their goers. Is a space that needs to consider the innovation as a necessity, as the globalization puts it in a delay state in relation in what the users needs (GUILHEM; TORINO; TAVARES, 2013). Some limitations that approach the libraries is the fact of this institutions, in many aspects, being controlled to external factors, as in

management and in the financial aspect, imposing like this limitation about innovation (JANTZ, 2012).

The recognition of the need of innovation inside of the ULs as part of their team is already a crucial factor to the beginning of the innovation process. Therefore, through treat of ULs, that normally are linked to a major organ, must take into consideration the difficulties in context of Institution as an all, and next to understand the principals mistakes that distance the academic community of their physical space.

The result of revision points that some libraries already noted the need of invest in innovative informational services, and are, slowly, inserting services of technological basis and changing the traditional concept of Library, investing in innovation and differentiated services to attract and to keep the users in the space.

## References

ABREU, Isabela Brod Lemos de *et al.* Parques tecnológicos: panorama brasileiro e o desafio de seu financiamento. **Revista do BNDES**, Rio de Janeiro, n. 45, p. 99-154, jun. 2016. Available on: <https://web.bndes.gov.br/bib/jspui/handle/1408/9414>. Access on: 26 maio 2018.

ABRITA, Mateus Boldrine. **Sistemas nacionais de inovação e importância para o desenvolvimento**. 26 mar. 2018. Available on: <https://www.correiodoestado.com.br/opiniao/sistemas-nacionais-de-inovacao-e-importancia-para-o-desenvolvimento/324333/>. Access on: 26 maio 2018.

ANPROTEC - ASSOCIAÇÃO NACIONAL DE ENTIDADES PROMOTORAS DE EMPREENDIMENTOS INOVADORES. Available on: <http://ANPROTEC.org.br/>. Access on: 26 maio 2018.

BLOCH, Carter. **Measuring public innovation in the nordic countries**. Aarhus: Norden, 2011. Available on: [http://nyskopunarvefur.is/files/filepicker/9/201102\\_mepin\\_report\\_web.pdf](http://nyskopunarvefur.is/files/filepicker/9/201102_mepin_report_web.pdf). Access on: 18 jun. 2018.

BRAGANÇA, Fábio Ferreira Coelho *et al.* Marketing, criatividade e inovação em unidades de informação. **Revista Brasileira de Marketing – ReMark**, São Paulo, v. 15, n. 2, p. 237-245, abr./jun. 2016. Available on: <http://www.revistabrasileirmarketing.org/ojs-2.2.4/index.php/remark/article/view/3277>. Access on: 27 jul. 2016.

BRASIL. Constituição (1988). Emenda constitucional nº 85, de 26 de fevereiro de 2015. **Diário Oficial [da] República Federativa do Brasil**, Poder Executivo, Brasília, DF, 26 fev.

2015. Available on: [http://www.planalto.gov.br/ccivil\\_03/constituicao/emendas/emc/emc85.htm](http://www.planalto.gov.br/ccivil_03/constituicao/emendas/emc/emc85.htm). Access on: 25 maio 2018.

BRASIL. Decreto-lei nº 10.176, de 11 de janeiro de 2001. **Diário Oficial [da] República Federativa do Brasil**, Poder Executivo, Brasília, DF, 11 jan. 2001. Available on: [http://www.planalto.gov.br/ccivil\\_03/Leis/LEIS\\_2001/L10176.htm](http://www.planalto.gov.br/ccivil_03/Leis/LEIS_2001/L10176.htm). Access on: 25 maio 2018.

BRASIL. Decreto-lei nº 10.973, de 2 de dezembro de 2004. **Diário Oficial [da] República Federativa do Brasil**, Poder Executivo, Brasília, DF, 2 dez. 2004. Available on: [http://www.planalto.gov.br/ccivil\\_03/ato2004-2006/2004/lei/110.973.htm](http://www.planalto.gov.br/ccivil_03/ato2004-2006/2004/lei/110.973.htm). Access on: 25 maio 2018.

BRASIL. Decreto-lei nº 11.196, de 21 de novembro de 2005. **Diário Oficial [da] República Federativa do Brasil**, Poder Executivo, Brasília, DF, 21 nov. 2005. Available on: [http://www.planalto.gov.br/ccivil\\_03/ato2004-2006/2005/lei/111196.htm](http://www.planalto.gov.br/ccivil_03/ato2004-2006/2005/lei/111196.htm). Access on: 25 maio 2018.

BRASIL. Decreto-lei nº 12.193, de 14 de janeiro de 2010. **Diário Oficial [da] República Federativa do Brasil**, Poder Executivo, Brasília, DF, 14 jan. 2010. Available on: [http://www.planalto.gov.br/ccivil\\_03/ato2007-2010/2010/lei/L12193.htm](http://www.planalto.gov.br/ccivil_03/ato2007-2010/2010/lei/L12193.htm). Access on: 25 maio 2018.

BRASIL. Decreto-lei nº 8.661, de 2 de junho de 1993. **Diário Oficial [da] República Federativa do Brasil**, Poder Executivo, Brasília, DF, 3 jun. 1993. Available on: [http://www.planalto.gov.br/ccivil\\_03/Leis/L8661.htm](http://www.planalto.gov.br/ccivil_03/Leis/L8661.htm). Access on: 25 maio 2018.

BRASIL. Ministério da Ciência, Tecnologia e Inovação. Centro de Gestão de Estudos Estratégicos. **Avaliação de políticas de ciência, tecnologia e inovação**: diálogo entre experiências internacionais e brasileiras: seminário internacional. Brasília, DF: CGEE, 2008.

BRASIL. Ministério do Desenvolvimento, Indústria e Comércio. **Plano Brasil Maior**. 2011. Available on: <http://www.abdi.com.br/Estudo/Plano%20Brasil%20Maior%20-%20FINAL.pdf>. Access on: 26 maio 2018.

BRITTO, Regina Garcia de; VALLS, Valéria Martins. Novas formas de aprendizagem e a mediação da informação: competências necessárias aos bibliotecários. **Revista Brasileira de Educação em Ciência da Informação**, Marília, v. 2, n. 1, p. 3-28, jan./jun. 2015. Available on: <http://abecin.org.br/portalderevistas/index.php/rebecin/article/view/20/pdf>. Access on: 31 maio 2018.

CARVALHO, Rodrigo Baroni de *et al.* Panorama da inovação no Brasil: análise baseada na perspectiva da competitividade global. **Revista Gestão & Tecnologia**, Pedro Leopoldo, v. 17, n. 4, p. 129-151, dez. 2017. Available on: <http://revistagt.fpl.edu.br/get/article/view/1276>. Access on: 28 maio 2018.



CUNHA, Bruno *et al.* Inovação governamental: análise da produção brasileira à luz da literatura internacional. **Boletim de Análise Político-Institucional**, Brasília, n. 10, p. 55-61, jul./dez. 2016. Available on: [http://www.ipea.gov.br/portal/images/stories/PDFs/boletim\\_analise\\_politico/170324\\_bapi\\_10\\_notas\\_pesquisa\\_03.pdf](http://www.ipea.gov.br/portal/images/stories/PDFs/boletim_analise_politico/170324_bapi_10_notas_pesquisa_03.pdf). Access on: 14 jun. 2018.

FERRÃO, João. Inovar para desenvolver: o conceito de gestão de trajetórias territoriais de inovação. **Revista Nacional de Desenvolvimento Local**, Lisboa, v. 3, n. 4, mar. 2002.

FERREIRA, Vicente *et al.* Inovação no setor público federal no Brasil na perspectiva da inovação em serviços. **Revista de Administração e Inovação**, São Paulo, v. 12, n. 4, p. 99-118, out./dez. 2015. Available on: [https://ac.els-cdn.com/S1809203916301152/1-s2.0-S1809203916301152-main.pdf?\\_tid=5e3264d4-851e-46eb-8242-c7df901e6f4e&acdnat=1529019832\\_c1ddf569577711fe4b980466d776e555](https://ac.els-cdn.com/S1809203916301152/1-s2.0-S1809203916301152-main.pdf?_tid=5e3264d4-851e-46eb-8242-c7df901e6f4e&acdnat=1529019832_c1ddf569577711fe4b980466d776e555). Access on: 14 jun. 2018.

FINEP - FINANCIADORA DE ESTUDOS E PROJETOS. **Empréstimo do BID para a Finep fortalecerá setores estratégicos**. Rio de Janeiro, 1 nov. 2017. Available on: <http://www.finep.gov.br/noticias/todas-noticias/5569-emprestimo-do-bid-para-a-finep-fortalecera-setores-estrategicos>. Access on: 26 maio 2018.

GUILHEM, Cristina Benedeti; TORINO, Ligia Patricia; TAVARES, Helena. Um olhar sobre inovação em bibliotecas universitárias: desafios e possibilidades. *In: CONGRESSO BRASILEIRO DE BIBLIOTECONOMIA, DOCUMENTO E CIÊNCIA DA INFORMAÇÃO*, 25., 2013, Florianópolis. **Anais...** Florianópolis: UFSC, 2013. p. 1-11. Available on: [http://repositorio.utfpr.edu.br:8080/jspui/bitstream/1/786/3/CBBB\\_Guilhem%2C%20Cristina%20Benedeti\\_2013.pdf](http://repositorio.utfpr.edu.br:8080/jspui/bitstream/1/786/3/CBBB_Guilhem%2C%20Cristina%20Benedeti_2013.pdf). Access on: 18 jan. 2018.

INSTITUTO IBMEC. **Sistema Nacional de Inovação (SNI)**. 2016. Available on: <http://ibmec.org.br/informe-se/sistema-nacional-de-inovacao-sni/>. Access on: 24 maio 2018.

JANTZ, Ronald C. Innovation in Academic Libraries: an analysis of university librarians' perspectives. *Library and Information Science Research*, Amsterdam, v. 34, n. 1, 2012. Available on: <https://www.sciencedirect.com/science/article/abs/pii/S074081881100096X>. Access on: 18 jan. 2019.

KON, Anita. Ecosistemas de inovação: a natureza da inovação em serviços. **Revista de Administração, Contabilidade e Economia da Fundace**, Ribeirão Preto, v. 7, mar. 2016. Available on: <https://www.fundace.org.br/revistaracef/index.php/racef/article/view/170>. Access on: 18 jun. 2018

MACEDO, Mayara Atherino; MIGUEL, Paulo Augusto Cauchick; CASAROTTO FILHO, Nelson. A caracterização do design thinking como um modelo de inovação. **Revista de Administração e Inovação**, São Paulo, v. 12, n. 3, p. 157-182, jul./set. 2015. Available on: <http://www.journals.usp.br/rai/article/view/101357>. Access on: 18 jan. 2019.

MARCONI, Marina de Andrade; LAKATOS, Eva Maria. **Fundamentos de metodologia científica**. 6. ed. São Paulo: Atlas, 2007.

NUNES, Martha Suzana Cabral; CARVALHO, Kátia de. As bibliotecas universitárias em perspectiva histórica: a caminho do desenvolvimento durável. **Perspectivas em Ciência da Informação**, Belo Horizonte, v. 21, n. 1, p. 173-193, jan./mar. 2016. Available on: <http://www.scielo.br/pdf/pci/v21n1/1413-9936-pci-21-01-00173.pdf>. Access on: 31 maio 2018.

OCDE - ORGANIZAÇÃO PARA COOPERAÇÃO E DESENVOLVIMENTO ECONÔMICO. **Manual de Oslo**: diretrizes para a coleta e interpretação de dados sobre inovação tecnológica. 3. ed. Brasília: FINEP, 2005. Available on: <http://www.finep.gov.br/images/apoio-e-financiamento/manualoslo.pdf>. Access on: 27 jun. 2018.

PALETTA, Fátima Aparecida Colombo; PALETTA, Francisco Carlos. Tecnologia de informação, empreendedorismo e inovação em bibliotecas universitárias. In: SEMINÁRIO NACIONAL DE BIBLIOTECAS UNIVERSITÁRIAS, 15., 2008, São Paulo. **Anais...** São Paulo: Unicamp, 2008. Available on: [www.sbu.unicamp.br/snbu2008](http://www.sbu.unicamp.br/snbu2008). Access on: 28 set. 2015.

PASSOS, Ketry Gorete Farias dos *et al.* Inovação em serviços de informação: uma análise bibliométrica da produção científica. **Biblios**, Brasília, n. 63, p. 28-43, 2016. Available on: <http://biblios.pitt.edu/ojs/index.php/biblios/article/view/283>. Access on: 28 set. 2015.

PORTO DIGITAL. **Porto Digital Parque Tecnológico**. Available on: <http://www.portodigital.org/home>. Access on: 28 maio 2018.

SANTA ANNA, Jorge. A biblioteca universitária no presente: de labirinto à encruzilhada em busca da biblioteca híbrida. **Revista ACB: Biblioteconomia em Santa Catarina**, Florianópolis, v. 20, n. 1, p. 6-18, jan./abr. 2015. Available on: <https://revista.acbsc.org.br/racb/article/view/982>. Access on: 30 maio 2018.

SANTA ANNA, Jorge; COSTA, Maria Elizabeth de Oliveira. A redefinição da biblioteca universitária à luz dos paradigmas da biblioteconomia e ciência da informação: um estudo de caso. **Ciência da Informação em Revista**, Maceió, v. 4, n. 3, p. 40-57, set./dez. 2017. Available on: <http://www.seer.ufal.br/index.php/cir/article/view/3746>. Access on: 31 maio 2018.

SARAIVA, Paulo; QUARESMA, Paulo. Bibliotecas universitárias: tendências, modelos e competências. In: CONGRESSO NACIONAL DE BIBLIOTECÁRIOS, ARQUIVISTAS E DOCUMENTALISTAS, 12., 2015, Évora. **Anais...** Lisboa: Cadernos BAD, 2015. p. 1-15. Available on: <https://www.bad.pt/publicacoes/index.php/congressosbad/article/view/1465>. Access on: 28 maio 2018.

SARTORI, Viviane *et al.* Parques Científicos e Tecnológicos: empreendedorismo e inovação. In: SEMINÁRIO NACIONAL DE PARQUES TECNOLÓGICOS E INCUBADORAS DE

EMPRESAS, 24., 2014, Belém. **Anais...** Brasília: ANPROTEC, 2014. p. 1-7. Available on: <http://www.ANPROTEC.org.br/Relata/ArtigosCurtos/ID%2084.pdf>. Access on: 28 maio 2018.

SILVEIRA, Nalin Ferreira. Evolução das bibliotecas universitárias: information commons. **Revista ACB: Biblioteconomia em Santa Catarina, Florianópolis**, v. 19, n. 1, p. 69-76, jan./jun. 2014. Available on: <https://revista.acbsc.org.br/racb/article/view/923>. Access on: 28 maio 2018.

SOUZA, Maria Naires Alves de *et al.* Os serviços de informação na biblioteca de ciências da saúde da Universidade Federal do Ceará (UFC): reflexões sobre a avaliação da disponibilização e uso. *In: SEMINÁRIO NACIONAL DE BIBLIOTECAS UNIVERSITÁRIAS*, 18., 2014, Belo Horizonte. **Anais...** Belo Horizonte: SNBU, 2014.

TAPSCOTT, Don. **A hora da geração digital**: como os jovens que cresceram usando a internet estão mudando tudo, das empresas aos governos. Rio de Janeiro: Agir Negócios, 2010.

TENÓRIO, Marge; MELLO, Guilherme Arantes; VIANNA, Ana Luiza D'Ávila. Políticas de fomento à ciência, tecnologia e inovação em saúde no Brasil e o lugar da pesquisa clínica. **Ciência & Saúde Coletiva**, Rio de Janeiro, v. 22, n. 5, p. 1441-1454, 2017. Available on: <http://www.scielo.br/pdf/csc/v22n5/1413-8123-csc-22-05-1441.pdf>. Access on: 22 jun. 2018.

USP - UNIVERSIDADE DE SÃO PAULO. Sistema Integrado de Bibliotecas. São Paulo, 2018. Available on: <http://www.sibi.usp.br/>. Access on: 27 maio 2018.

UFG - UNIVERSIDADE FEDERAL DE GOIÁS. Sistema de Bibliotecas. Goiânia, 2018. Available on: <https://bc.ufg.br/>. Access on: 29 maio 2018.

UFSC - UNIVERSIDADE FEDERAL DE SANTA CATARINA. Sistemas de Bibliotecas da UFSC. Florianópolis, 2018. Available on: <http://portal.bu.ufsc.br/>. Access on: 28 maio 2018.

VILHA, Anapátricia Morales; QUADROS, Ruy. Development of sustainable products: analysis of the implications on the management of technology innovation projects of a brazilian company. *In: ENCONTRO NACIONAL DE PÓS-GRADUAÇÃO E PESQUISA EM ADMINISTRAÇÃO*, 31., 2007, Rio de Janeiro. **Anais...** Rio de Janeiro: ANPAD, 2007. p. 1-15. Available on: [https://implicacoes\\_em\\_projetos\\_de\\_gestao\\_inovacao\\_tecnologica.pdf](https://implicacoes_em_projetos_de_gestao_inovacao_tecnologica.pdf). Access on: 18 jan. 2019.