Technology in Practice in Brazilian Judiciary: The Process of Computerization

Completed Research Paper

Marcia Regina Martelozo Cassitas Hino
Fundação Getúlio Vargas
marciakahino@uol.com.br

Maria Alexandra Cunha
Fundação Getúlio Vargas
alexandra.cunha@fgv.br

Abstract

The objective of this article is to understand the use of technology in the practice of appeal court judges, judges and lawyers in the context of technology adoption of the lawsuit computerization in Brazil. The analysis is supported by the Multilevel Conceptual Framework proposed by Pozzebon and Diniz (2012). The social groups, interpretative schema, negotiation mechanism and technology in practice are the pillars of this analysis. The main expectations on the use of lawsuit computerization are related to celerity and judicial service enhancements as a result of its efficiency increase. The negotiation mechanism used was imposition. The migration of part of administrative tasks to lawyers, the use of physical file, the need of having digital documentation examination and the way in which the data is referenced in the computerized lawsuit are some of the technology in practices identified.

Keywords


Introduction

The paper on technology in practice of judiciary is a timely piece as world grapples with justice and human rights and justice for all with utmost impartiality. A number of judicial systems in the world are conducting self-assessments and in many cases realigning themselves to deliver justice for their citizenry. One of the areas of the said realignment is though the adoption of technological innovations to improve the processes of ‘delivering’ justice. This is especially relevant in developing countries where inequalities of access to justice are challenges that must be faced.

The Brazilian Judicial System is undergoing significant changes with the computerization of lawsuit process whose goal is to promote a more agile and therefore more efficient justice. According to National Council of Justice (CNJ) in “Justiça em Números 2013” report, the total number of pending cases in the Judiciary is progressively increasing since 2009, when it was 83.4 million cases in progress reaching 92.2 million in 2012. The volume of new cases increased in 8.4% in 2013.

Since 1991, laws have been issued aiming to support the use of electronic media in the legal environment (federal laws 8,245/1991, 9,099/1995, 9,800/1999, 10,259/2001, 11,419/2006). Laws to support its use were followed by the encouragement of its use, and culminating into an imposition.

In late adoption of technology, the imposition is one strategy used with the object of promoting a fast use of technology. This scenario outlined the research problem of this article: investigate how the use of technology occurs in the practice of core professionals in the sector namely appeal court judges, judges and lawyers in the context of technology adoption of the computerization of lawsuit process in Brazil.
Theoretical Framework

Users interact with the technology evaluating and trying to find meaning in it all the time. The adoption of a technology process is unique, progressive, open and also influenced by social aspects.

This work was developed under a contextualist approach, with a multilevel conceptual framework proposed by Pozzebon et al (2009) and later enhanced by Pozzebon and Diniz (2012). This model is supported by a combination of theories. In the context dimension, is supported by social shaping of technology (Mackenzie; Wajcman, 1985). In the content dimension, is supported by the structuration theory and the duality of this structure (Giddens et al, 1989) and also structuration theory of technology (Orlikowski, 2000). This framework was selected due its ability to support complex interaction and different levels between individuals, social groups, organizations and networks, to a level of community and society in the study of technology as practice (Pozzebon et al., 2009).

Multilevel Conceptual Framework

The multilevel conceptual framework (Pozzebon and Diniz, 2012) combines four core concepts: technology in practice, negotiation mechanisms, social groups and interpretive schemes, which are interconnected by means of three different dimensions: context, process and content.

This framework has been improved through twelve different studies, culminating in a solution by Pozzebon and Diniz (2012), which analyzed the technology use actions according to groups, perceptions and context they live in. According to the authors, this analysis allows a more detailed assessment of the perceptions and human actor’s actions, without neglecting the historical context in which the actions were taken and perceptions were formed (Walsham; Sahay, 1999).

The context refers to social environment where technology is being implemented and used. It includes the identification of relevant and different social groups. It also includes the identification of technological visions for each social group, allowing the recognition of perceptions, expectations and conflicting and common interests, which are called interpretive schemes. It allows identification of benefits, strengths, problems and barriers to technology use.

The process refers to the understanding of how social groups exert an influence in the negotiation of implementation and use of a new technology process. It enables analysis of how different social groups and their interpretive schemes influence the negotiation of implementation and use of technology.

The process and results will be influenced by different interests, perspectives and conditions under which social groups interact with technology. In this scenario, the content dimension demonstrates the technology in practice resulting from the negotiation process, i.e., characteristics of the technology and the intended and unintended consequences, as shown in Figure 1.
In addition to the three dimensions of analysis, the proposed framework is also comprised of four main concepts (POZZEBON and DINIZ, 2012):

a) **Social groups** refer to groups of people who share a set of assumptions about a particular subject of interest, e.g. a geographical space, a social class or occupation;

b) **Interpretative Schemes** refer to interests, assumptions and expectations that people have about a technology, including not only the nature and function of the technology itself, but conditions, uses and intended or unintended consequences of the use of that technology;

c) **Mechanisms** refer to the understanding of how social groups influence the negotiation process of the implementation and use of technology;

d) **Technology as practice** refers to technology as a response to the consequences and intentional and unintentional features generated by trading. May arise from the emergence and improvisation, i.e. the way people redefine the meaning, properties and applications of a given technology.

Whereas the technology can be interpreted, reinterpreted and negotiated in different ways, depending on the interpretive scheme of social groups, technology in practice can come as unplanned for their use (POZZEBON et al, 2009) forms.

This multilevel conceptual framework conducted for the specific methodology procedures as follows.

**Methodology**

The qualitative research was selected and methods of data collection were: semi-structured interviews, non-participant observation and documental analysis.

The non-participant observation was used as a way to enrich the empirical study and as a form of triangulation of information collected through interviews. The purpose of triangulation was to increase the validity and reliability of the data collected. Document analysis was mainly used to compose the history of the judicial process and describe the structure of the Brazilian judiciary.

For data collection, three scripts were produced: a form to be used by those not available for a face-to-face interview, a summarized interview script for those with limited time available (one hour) and a full interview script. The interviews were recorded and transcribed. Later the interviews were uploaded into ATLAS.ti, which was used to support the content analysis.
The criterion used in the content analysis was semantic categorization, in which subjects with the same meaning are grouped in the same category. The categories were initially defined by the proposed multilevel conceptual framework - social groups, interpretive schemes and negotiation mechanisms – and later sub-categories were created.

The data analysis occurred in stages. A first reading was held, with no concern coding, to achieve closeness to the content of the interviews. In the second reading, in which the coding was done, 1,404 quotations were selected and grouped into 103 codes. Finally, webs were created to assist in the review of coding and support the interpretation of the results.

The context of this research is the Brazilian judicial system. Considering the large number of independent units of the Brazilian Judiciary and the difference of scope of jurisdiction in its various branches, the focus was the Ordinary Courts - Federal Courts and State Courts - and Labor Justice, in the special field of law.

The interview participants selected were appeal court judges, judges and lawyers from the south of Brazil. Additionally, interviews were conducted with IT consultant professionals for legal practitioners, with the aim of better understanding the interpretive schemes and technology in the practice of computerization of the Brazilian judicial process. A total of 1,037 minutes of 30 interviews was considered, and only two written responses were considered as part of data collection.

Among the respondents, 4 (13%) were consultants for legal practitioners, 15 (50%) lawyers, 8 (27%) judges and 3 (10%) appeal court judges. The distribution on law areas was 9 (35%) in the state courts, 9 (35%) in the federal justice and 8 (30%) in the labor courts.

Additionally, the categorization of respondents was given for age, duration of legal action and time of computerization systems for lawsuits use. Among these categories, the distribution was:

- The average age of respondents was 44 years, ranging between 28 and 68 years, concentrating in 40 years;
- The professional experience of the respondents ranged between 2 and 45 years, with an average of 19 years and greater concentration in 14 years of experience;
- The average use time of computerized lawsuit process was 5 years, ranging between 2 to 9 years, with the largest concentration in 5 years.

**Data Analysis and Discussion**

To present the results achieved, it was deemed necessary to briefly describe the history of the use of technology in Brazilian court.

**History of Use of Technology in Brazilian Court**

By federal law 10.259/2001, the use of information technology was accepted for the development of communication systems of procedural acts, allowing the sending of electronic petitions, the conduction of virtual meetings and the development of technological solutions. Also in 2001, it was sanctioned an interim measure to legalize the digital signature in Brazil, and to ensure the authenticity, integrity and legal validity of electronic documents through the use of digital certificates (Silva, 2013).

A major change in the Brazilian Judiciary by the use of information technology began in 2004, when the 4th District Federal Court authorized the implementation of the electronic process in place to physical selves. In 2006, the Federal Law 11.419/2006 was enacted, providing for the computerization of the judicial process in which the major change was the possibility of using electronic means in the course of judicial proceedings. Thus, it became irreversible computerization of court proceedings and the various courts in the country that encompass, the judiciary structure gradually began to deploy automated process for new lawsuits (Álvares, 2011). However, the administrative independence of each court allowed the adoption of proprietary systems for managing automated lawsuit, with different chronological characteristics and requirements. Since 2011, the National Council of Justice (CNJ) is coordinating the...
development of a system in partnership with several Brazilian courts that are being adopted as standard across the Judiciary.

**Technology in Practice**

The analysis is presented as per the four concepts that support the model: Social Groups, Interpretative Schema, Negotiation Mechanism and Technology in Practice.

The social groups were lawyers, judges and appeal court judges.

**Interpretative Schema**

Some assumptions supported the way the computerization was understood. It was seen as modernity in which electronic process are responsible for faster processes, minimizing the risk of losing physical process. Computerization was also understood as having sustainability vies.

"I think it was created due to the advancement of the computer technology, the information, [...]" (Interviewee P18)

"The goal of this technology is to bring to the lawyer, greater speed [...] because one of the electronic lawsuit characteristic is [...] that legal cases are much faster." (Interviewee P6)

"[...] idea of developing not only a virtual electronic lawsuit [...], but also save paper, because too much money is spent on it and also environmental damage with excessive cutting of trees to produce too much paper ". (Interviewee P7)

"I guess [...] that when do not have paper, things get a little faster." (Interviewee P15)

"[...] realize that several processes were lost, really lost, some in the cupboard, and others fully lost [...]." (Interviewee P15)

Among several expectations, celerity in judicial process was mentioned by all respondents, irrespective social group which they belonged to, enhancements on judicial service as a result of its efficiency increase. Other expectations include cost reduction, employee reductions, control improvements, easier access information and physical space reduction.

"I believe it was to facilitate the process. To further speed up the process because without the electronic lawsuit, it was very time consuming. " (Interviewee P2)

"[...] provide greater process analysis, and enables the sending of a largest number of cases already resolved to the file, and can focus effectively on the analysis of those who were actually requiring a judicial measure." (Interviewee P15)

"It was the need to comply with a less abusive and absurd deadline to the public demand" (Interviewee P24)

"The electronic lawsuit became a need because of the excess of physical processes. There are places in which the weight jeopardize the building itself, so great is the number of process." (Interviewee P7)

"I believe in the possibility of trying to replace precarious way to meet the demands just hiring [...]". (Interviewee P15)

The Figure 2 summarizes the interpretative schema:
Negotiation Mechanisms

Three factors were relevant to the adoption of electronic lawsuit in the courts: firstly, the enactment of laws that supported the use of technological solutions in the judicial process; secondly, the autonomy given to the courts for deciding on implementing or not technological solutions; and finally, the establishment, by CNJ, of a standard system to be implemented in all courts in the country (Figure 3).

Law firms were excluded from the negotiation mechanism and, notwithstanding there was any law stating on it, the need to keep acting in computerized courts was the negotiation issue.

Technology in Practice

Technology in practice refers to the use of technology as a response to the consequences of intentional and unintentional characteristics, in other words, the way meaning, properties and applications of a given technology is redefined (ORLIKOWSKI, 2000). Based on this statement, benefits and impacts that affected the way the technology is used in practice were identified. The Figure 4 summarizes the point.
All expectations mapped were met and additional benefits were identified. Significant cost reduction were identified with the paper use reduction, with the no need to have a person to come and go to a court with physical lawsuits and no need to send a person to places where the law firm did not have a representative to manage the physical lawsuit files. As stated by Interviewee P21:

"[...] I commented the countryside example, where you are staying in a hotel and get a person with an urgent mandate to sign, nowadays he just called me. I did not even leave the hotel room and have it signed ".

Transparency occurs in the availability of information to the legal activity, which can be monitored and controlled by the company as well as for ensuring that all processes have the same priority rule in the legal system.

"[...] the Judiciary is available 24 hours a day, 7 days a week. This provides greater transparency, which is important for the government. People can monitor the activity much more easily" (Interviewed P13).

"[...] you are not available to the registry office, this stopped a little the internal influence, that my case will be tried before because I know the registry office representative and he put my case before others [...]"(Interviewed P18).

Visual pollution were reduced, as that figure of libraries full of books, cabinets full of processes, judges rooms and law firms full of physical lawsuit no longer exist. This was clear stated by interviewed 4:

"Well, my work environment has changed completely, even physically, because before, we lived behind lawsuits. Now everything is in the computer, after changes, everything is cleaner, more visible; the workplace may even decrease of size with time because it will not have all that paperwork".

The productivity benefit presupposes the use of technology to automate activities that were initially performed manually by legal professionals. The better use of physical space was well summarized by Interviewed 26: "[...] because historically there were those awful paper stacks ... half the building was for archiving old files. Currently, it is all electronic".

The security of the digital information in relation to physical ones is given by the simple fact of not having more processing of paper in electronic lawsuit. As commented by the Interviewed P18 "[...] quite often the
case was taken to the office and vanished" or even "[...] quite often you got the physical process flip and realized that two leaves were missing [...]" and the Interviewed P23 "the fact is that I no longer have the risk of losing the file when I leave the court with it ".

Regarding the impacts, all of them are considered negative from the perspective of respondents. In relation to the lack of information standardization, in order to information be easily found in the records of electronic lawsuit, it is necessary that they be properly categorized and indexed. There are several situations that prove the lack of awareness on the information categorization in electronic lawsuits:

"[...] there are lawyers that, in the initial application, instead of putting the entire initial petition with 5 leaves, he puts a file for the first sheet, a file for the second, a file for the third [...]" (Interviewee P18).

"[...] has no standardization, then each process we open up, we have to understand the lawyer's organization [...]" (Interviewee P24).

"[...] lawyers do not always use correctly the names of these documents, you know ... sometimes they do not know the name, so categorize as 'other'" (Interviewee P25).

As a result, the Judiciary is working on a code of ethics for the electronic lawsuit in which one of the indications is "[...] making lawyers use properly the file categorization, to facilitate the process for whoever will consult it later" (Interviewee P25).

The facility of including many documents and several volumes of pages, not always facilitates to correct classification and indexation of document being included in the proceeding records. This ended in an increasing difficulty for locating information in a file. As stated by interviewed P14:

"[...] when the electronic lawsuit has many documents it becomes extremely complex, much more exhausting for you to find a statement in the file [...]"; and

"[...] we wait for the parties to be conscientious and upload the document and categorize it properly, because there is a specific receipt that the lawyer wants to be seen and that is essential, it cannot be put in the middle of 500 other files. If it is not properly identified, there is the risk of not finding it [...]".

The difficulty to visualize the information is mainly related to reading in electronic devices. The dependency on internal and external infrastructure can be explained as the dependency created with the migration of all the work for electronic media and availability of IT infrastructure that did not exist before. For the interviewees:

"[...] I think this dependence on electricity for the system to be fully operating is a negative point [...]" (Interviewee P23).

"It's that feeling of being held hostage. [...] If miss light; you have no means to work." (Interviewee P26).

In this scenario, many changes were identified. From people's point of view, the facility to access all information in a single point causes people to work longer alone and interact little with other professionals, "[...] then, on one hand, the work is more relaxed, more open environment [...] but are also more isolated "(Interviewed P26). Although problems arising from the handle of paper, such as rhinitis and hand and back pain, are reducing, others derivate from intensive use of computers including use of eye drops, the increase the use of glasses, among others.

With reference to the work environment, there is no distinction between different social groups. The perception is that the work environment has changed significantly: the stacks of physical records were eliminated leaving a cleaner environment, but visible.

Many practices emerged in this context:

Migration of Administrative Tasks to Lawyers - Several lawsuit administrative activities that were performed by the court migrated to lawyers as a result of the implementation of the electronic lawsuit. Lawyers are responsible to initiate the process in the system, choose the subject it refers to, and include the parties and distribute the process. Support teams were created at the offices in order to absorb these new administrative activities that have become routine in law firms. "There were many complaints by the
compulsory use of electronic lawsuit, especially given the perception that lawyers became responsible for administrative activities that were previously performed by the court support team, such as the registration of parties to the filing of the suit and joined the documents.” (Interviewed P31)

Use of 2 video monitors - The physical lawsuit allowed browsing the file, marking up pages and to highlighting relevant items, in parallel with the lawyer writing application. In the electronic environment was very difficult to consult the process and write the application in a single monitor, even using ALT+TAB. This problem was minimized with the use of two video monitors, one dedicated to the handling of the lawsuit in the electronic system, and the other to the preparation of the application by the lawyer.

Use of physical files - The uncertainty in the use of electronic media as the only way of storing judicial information led many lawyers to store physical copy of their petition filed in proceedings under their responsibility. Some law firms maintained this practice for longer than two years, and after this period they felt comfortable with the security system of the Brazilian courts.

Creative Vacuum - The creative vacuum resulted from the easy access to information and the facility to use this information through the "copy and paste", propitiates not only extensive applications but also generic ones inhibiting the creative ability. There are situations where the standard text incorporates model for various situations, even if not handled in the process where the model is being used. This excess of unnecessary information make the judges take longer to analyze and render its decision. There are cases where this step is so mechanized that the lawyer makes use of a wrong model in his application, disputing what should not or that did not exist in the process. There are several cases in the internet that illustrate the situation. In one of them, the judge rend everything by not understanding the link between the lawsuit subject and the defense presented in the case, probably due to the use of the wrong “model” for that process. “With the electronic lawsuit, it became easy to find and capture model applications of similar subject to use in the one you’re working in. Moreover, having the internet as almost inexhaustible source of information, it was observed that currently very little new is produced in forensic legal means, since it is possible to obtain from internet virtual models for all legal matters” (Interviewed P31).

Daily Routine defined by System - The publication of a decision in the Official Newspaper could take months, but with the electronic lawsuit, the publication is immediate, with the formal notice deadline beginning in ten days maximum time, that the system waits for viewing by lawyers for the parties. Lawyers have few time to plan the activities as in a period of 10 days, new actions would be required from the process under its responsibility.

Digital Document Examination - The ability and agility to recognize possible fraud in electronic documents is one of the skills to be developed by legal professionals, which were not needed in physical processes.

Reference to Lawsuit data – Despite a legal requirement it was implemented differently in the electronic lawsuit, changing the way data reference was done in lawsuit. While on paper it indicated the page where the information was, in the electronic law, the way to refer changed to “pages of attached files”, for example, page 10 of "other 10" file. In addition to this, the whole physical lawsuit was numbered per sheet, and, in the conversion to electronic lawsuit, the numbering became a page, invalidating existing references in the process.

Use of Management systems – A number of controls which the physical files allowed - bins indicating processes under analysis, stack of processes that, depending on where they were, represented the urgency for the law professional, stacks of process in the workplace indicate the volume of pending work with that professional – just disappeared with the electronic lawsuit, and management systems had to be implemented to support this need.

Use of Robots to gather Information - The use of robots to capture information of a lawsuit changes, such as orders, minutes of hearings, rulings and judgments in the electronic systems lawsuit, is already a reality in some law firms in the country. Despite that, there is no standard interface with these systems and the law firms have to code the robots to interact with each system.

Printing Files - Afraid that some important information inserted into one of the numerous files attached to the electronic lawsuit would pass unnoticed by courts, knowing the judges would not, some lawyers
began printing parts of the case file to highlight what they considered relevant, and delivered them to the judge.

**Final Remarks**

The Multilevel Conceptual Framework, presented by Pozzebon and Diniz (2012), used as a tool for investigating how the use of technology occurred in the practice of core professionals in the context of technology adoption of the computerized lawsuit in Brazil seemed powerful. The approach increased the understanding of how technologies emerged as practice, being it intended or not, and covered four main concepts namely social agents, interpretative schema, negotiation schema and technology in practice.

The social agents selected for this article were core professionals in the sector including lawyers, judges and appeal court judges. They were distributed among different law areas: Ordinary Courts - Federal Courts and State Courts - and Labor Justice, in the special field of law.

In relation to the interpretative schema, among several expectations related to the computerization of lawsuit, celery and service improvements were commented on by all interviewees. Some assumptions were identified and, together with expectations, influenced the negotiation mechanism.

The negotiation mechanism started with federal laws to support its use, followed by encouragement for its use, and culminated into an imposition. Although the lawyers were the most affected, they did not participate in the negotiation process.

Regarding the technology in practice, the benefits of its usage covered all previous expectations from the social agents, notwithstanding negative impacts were also mapped. Among the ones interviewed, practices were: a) migration of administrative tasks to lawyers; b) use of 2 video monitors; c) use of physical file; d) existence of creative vacuum; e) daily routine defined by system; f) digital documents examination; g) change on how to reference lawsuit data; h) use of management systems; i) use of robots to gather information; j) printing files.

A rich discussion of technology adoption in Brazilian Justice that resulted in intended and unintended practices were hold. The adoption is still in undergoing stage and positive and negative impacts described in the study may be useful to maximize the benefits and minimize the negative impacts generated by some practices of its use. The Brazilian govern still plays a significant role in this scenario.

**Reference**


