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Using Web Technologies In The Discipline Of Law And Informatics

Airton Jose Ruschel, Aires José Rover, Juliete Schneider [1]

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Abstract

This article discusses the use of the new technologies of the information and communication (ICT) and web tools in the teaching/learning of the discipline Law and Informatics of the Course of Law of the Federal University of Santa Catarina (UFSC) in Brazil. At present there is an interest on the part of the teachers and the students to understand this work methodology, and the best approach to the interface of student/computer/teacher in a virtual environment of learning. The attending class has as function, besides the personal contact with the student, to prepare strategies that will be used in the virtual environment. In the discipline we see the beginnings of encouraging the use of the virtual environment and learning is shown to be profitable, as it will be seen in the presented elements. The student can take his experience of this discipline for the other disciplines in their law course, as well as for his academic apprenticeship and for the work environment, already as a professional of Law. The approach of the technology, in a guided way, helps the student to look for also in the virtual way, new borders and solutions for their problems.

1. Introduction

One of the sectors of society in which the use of information technology and communication (ICT) has been more dynamic is the education. The technological innovations that were originally used in isolation in the educational centers of universities began to become integrated in the internal and external university networks creating a whole net. Brazil and its universities have invested in this integration, especially in the placement of physical infrastructure, for example, the deployment of broadband, wireless networks, backbones, routers, and its integration with the laboratories.

The campus became an interconnected vault with ramifications that go beyond the physical boundary of the campus. Traditional labs are giving way to a new kind of laboratory, which extends throughout the university, mainly in their classroom. Most of the students have a computer at home and now with the price reduction and return on investment, the students started to buy portables computers like notebooks, laptops,

netbooks, i-paddles, where the most important thing is having quick access to Internet and began to access the computing resources of the university, regardless of where they are. It is common for students to use their equipment in classroom to interact with issues relating to the discipline being taught.

The nature of distance education (e-learning) is being transformed, from the increasing demands of students and providing the improvement of solution providers. Before, the e-learning was used by those who were away from physical education facilities such as schools, libraries, universities and research centers. But today the student may still be physically distant but can also be close to, or living the life on campus.

The use of compact discs (CDs), digital video discs (DVDs) and other storage devices are now falling into disuse and its content is being ported to the Internet environment. The new productions for the education market are being produced in the most perennial way than as possible, avoiding temporal characteristics.

The e-learning, more than one solution for teaching and learning, it has been demonstrated an effective methodology for planning and organization of knowledge and for its dissemination. Distance education (e-learning) and face-to-face education in the classroom are beginning to complement their selves and merge in the sense that one depends on the other. Moore and Kearsley mentioned the importance of electronic media and organizational structure and administrative arrangements for ensuring the e-learning:

> Educação a distância é o aprendizado planejado que normalmente ocorre em lugar diverso do professor e como conseqüência requer técnicas especiais de planejamento de curso, técnicas instrucionais especiais, métodos especiais de comunicação, eletrônicos ou outros, bem como estrutura organizacional e administrativa específica. [2] (Moore and Kearsley, 1996, p.2)

The quality and the offer of education services, which previously was compared between one form and the other (e-learning at home and presencial in the classroom learning) has made these two fronts improving and finding themselves in a common source: the own education. To Moran (2009) the learning should be continued:

> Educar é colaborar para que professores e alunos nas escolas e organizações - transformem suas vidas em processos permanentes de aprendizagem. É ajudar os alunos na construção da sua identidade, do seu caminho pessoal e profissional - do seu projeto de vida, no desenvolvimento das habilidades de compreensão, emoção e comunicação que lhes permitam encontrar seus espaços pessoais, sociais e de trabalho e tornar-se cidadãos realizados e produtivos. [3] (Moran, 2009, p. 1)

This continuous learning, since the technologies are widespread, requires a new attitude, not only from the student, but mostly the teacher and the educational manager. Therefore, students in the classroom must learn to interact with different sources of information simultaneously. One source is the teacher's own classroom attendance, rich in resources coming from the internet. Another is the teacher performing a mentor work, which provides an attractive multimedia interface based on the intensive use of internet resources for the student performing on a pleasant and controlled learning. This teacher

will drive the student indicating and monitoring through the growing and heterogeneous information sources available on the internet, or in some specific traditional space, which will still be virtualized for the web pattern.

Currently there is a growing availability of access to the internet infrastructure and there is a demand for services on the internet for this new generation of students born in the cyber culture. It is important that the tutoring teacher presents no ready solutions, but make a effort to find offers of access methods and tools based in qualified software and portals. He needs experience with the students to new technologies, making an exercise in fostering ideas and in their consolidation to produce at the end of academic semester, a result that satisfies the discipline and empower the student's knowledge. But more than this, he needs to provide a new attitude, confidence and security to the student to navigate these new technologies with insight and motivation. This can result in students a critical attitude and optimism facing technological innovations, as well as an interest in formal continuous learning, especially after his graduation.

In this context, the discipline of Law and Informatics of the Law School of the Federal University of the State of Santa Catarina (UFSC), in south Brazil, can be considered a laboratory that seeks to bring within the debate, the traditional questions of law, now set on the network society. The concept of network society was coined by Manuel Castells (1999), which meaning summarizes the morphology of this new society we are living, where everything is interconnected and systemic.

Nowadays, the law activity permeates all sectors of the modern society, including the and worldwide internet. The use of innovative internet tools helps to achieve the goal of learning mediated by computer and by the tutorial of the teacher.

2. The discipline Law and Informatics

The discipline Law and Informatics has the code DIR5934 and is part of the curriculum of the Curse of Law of the Juridical Science Centre (CCJ) of UFSC and is a teaching experience that comes from some pioneering actions taken in law school at UFSC:

> O professor Luiz Adolfo Olsen da Veiga, atualmente aposentado, foi o grande pioneiro da Informática Jurídica no Centro de Ciências Jurídicas da UFSC. Mestre na área, venceu toda oposição e conservadorismo comuns em situações de inovação em espaços jurídicos. Nessa caminhada, idealizou a disciplina "informática jurídica" nos cursos de graduação e pós em direito da UFSC e criou o Laboratório de Informática Jurídica - Linjur, com a ajuda do servidor Marco Antônio Machado Ferreira de Melo e do então doutorando Aires José Rover. Corria o ano de 1990. O Laboratório de Informática Jurídica consiste ainda hoje em um espaço físico de apoio à realização de trabalhos e pesquisas acadêmicas no Centro de Ciências Jurídicas da UFSC. [4] (Rover and Ramos Junior, 2010, p. 1).

It is in this context that the discipline was being offered. In particular the first half of the year 2009 was conducted by two professors (professor and trainee teacher). The innovative concept of the discipline reveals the dimension of the challenge, not only for

teachers but also for students. They are researching in law questions in Brazil seeking to address approaches that allow consistently grasp the complex processes of the knowledge society. 18 meetings (attendance and activity in a network) were issued totaling 36 class hours that treated the following themes:

- Network Society;
- Benefits and risks of Internet;
- E-government;
- E-government Observatory and metrics [5] (taught by visiting professor Fernando Galindo Ayuda within the partnership between UFSC and LEFIS [6] from University of Zaragoza / Spain (UNIZAR)); [7] telework);
- Computer Crimes (tag infocrime);
- Intellectual property and the digital world (tag PI); and
- Digital security and digital documents (tag Seg).

The professor of the discipline Law and Informatics ministers regularly lectures in the course of Law at University of Zaragoza in the formal agreement between the universities. The subjects taught in both the law school experience a constant discussion by the participating teachers of the covenant. These activities allow the student of law school to foresees an international situation of classroom attendance and participate in international research of interest to the partnership with UNIZAR and UFSC. A group of 10 students developed an Egobs survey (E-government observatory) for this international partnership.

UFSC University represented by the coordinator teacher of the discipline Law and Informatics is part of the LEFIS Network (Legal Framework for the Information Society) coordinated since the Universidad de Zaragoza by Professor Fernando Galindo Ayuda. Many of the concerns that are taken into account for the formatting of the discipline Law and Informatics at graduation are discussed among members of the LEFIS Network. The LEFIS Network provides the Virtual Campus [8] - Derecho y Tecnologías de la Información y la Comunicación (Law & ICT Shared Virtual Campus) - for the international learning of law.

Fernando Galindo (2009) sets out the main concerns of the Declaration of Bologna (1999) which initiated the Process of Bologna, which addresses the reform of higher education in Europe (Espacio Europeo de Educación Superior - EEES), planned for the coming years, and that have wide international repercussions:

- Dimensión social: promoción del acceso equitativo a la enseñanza universitaria e inclusión social;
- Promoción de la formación/aprendizaje permanente: "a lo largo de toda la vida";
- Empleabilidad: conexión entre docencia y necesidades del mercado de trabajo;
- La docencia centrada en el aprendizaje del estudiante es la misión principal de la formación superior;
- Vinculación de educación, investigación e innovación;
- Apertura internacional;
- Movilidad de estudiantes y de profesores;
- Recopilación de información a efectos de poder contar con métodos con los que efectuar la medición de los avances: indicadores adecuados;

- Herramientas capaces de expresar la transparencia multidimensional de la reforma: que permitan la participación de todos los implicados, es decir todos los agentes sociales, en la formación superior;
- Pluralidad de fuentes de financiación, que permita el acceso equitativo y el mantenimiento de la autonomía de las instituciones públicas de formación superior; y
- La caracterización detallada de estos objetivos/prioridades puede verse en el contenido de la Declaración. [9] (Galindo, 2009, p. 5)

Inside the concerns of transparency and visibility of researches conducted in conjunction with the discipline of Law and Informatics, Fernando Galindo says

> Como ha sido expresado las recopilaciones de datos por medio de las encuestas se hace tanto de profesores como de alumnos. Los resultados, además, son publicados en páginas Web (www.egobs.org), resultando accesibles a toda persona interesada que puede conocer y opinar sobre la experiencia. [10] (Galindo, 2009, p. 210)

Thus, what is researched at UFSC gain international visibility and expression. The consolidation of these analytical data, collected by the students of law at UFSC, will help to build the world map of electronic government.

3. Using Moodle

UFSC maintains a tradition of offering courses in e-learning for customers outside the university through the Department of Distance Education (SEADE) [11]. The e-learning is also known as distance education. The other centers of UFSC also have the autonomy to offer different courses by e-learning for the external public. The history of this whole experience in e-learning by UFSC and the concepts of e-learning are available in the book of Professor Ms. Nara Pimentel (2006).

The Open University of Brazil (UAB) [12] is a virtual university of the Brazilian government. It outsources the demanded courses with the universities in Brazil, where the producers of e-learning courses are invited to produce and deliver the courses, through a public auction of Brazilian government.

All this experience of UFSC for the external market has created a culture of discussion, planning, management and production in e-learning. The UFSC teachers from the presencial courses, by themselves, produced didactic contents for the e-learning. Both, experience and methodology, was taken by the teachers to produce classes in classroom learning. Some tools, including e-learning frames and physical environment (studios), were developed in university labs.

In UFSC, different centers, or even teachers by themselves or isolated courses were using some e-learning tool. The tool that was more spread was Moodle, [13] as a solution at no cost to the user, free software developed and continuing technological upgrades [14].

Moodle means Modular Object-Oriented Dynamic Learning Environment. In the local network of Law Center (CCJ) in UFSC, the Moodle tool was already used in an intranet

solution for the discipline of Law and Informatics since the first half of 2007. The main problem was the need for system management and support to students, because the system ran in an isolated environment and the students need to work in an informatics lab. This context did not generate synergy with the "external" increasing internet culture. The students only had access to this Moodle environment along the one semester of the discipline.

Law and Informatics (DIR 5934) was the first discipline of Law Course of UFSC to agree the recently corporate platform of UFSC's Moodle in the first half of 2009, which can be seen in Figure 1. How this has worked a positive effect among students and sparked interest from other teachers of the center, two more courses were available in the second half of 2009 by other teachers.

The use of Moodle by UFSC community can be considered something more impactful for teachers than for students. Because teachers, who are overwhelmed with tasks in the traditional classroom mode, will have to invest a good time to learn the system and to qualify the didactic material and exercises which will be available on the network. Being UFSC attent to this issue, as described in the statement in Figure 1, which expresses that Moodle is a "system of support for classroom courses" which would not have the intention to replace the traditional model.

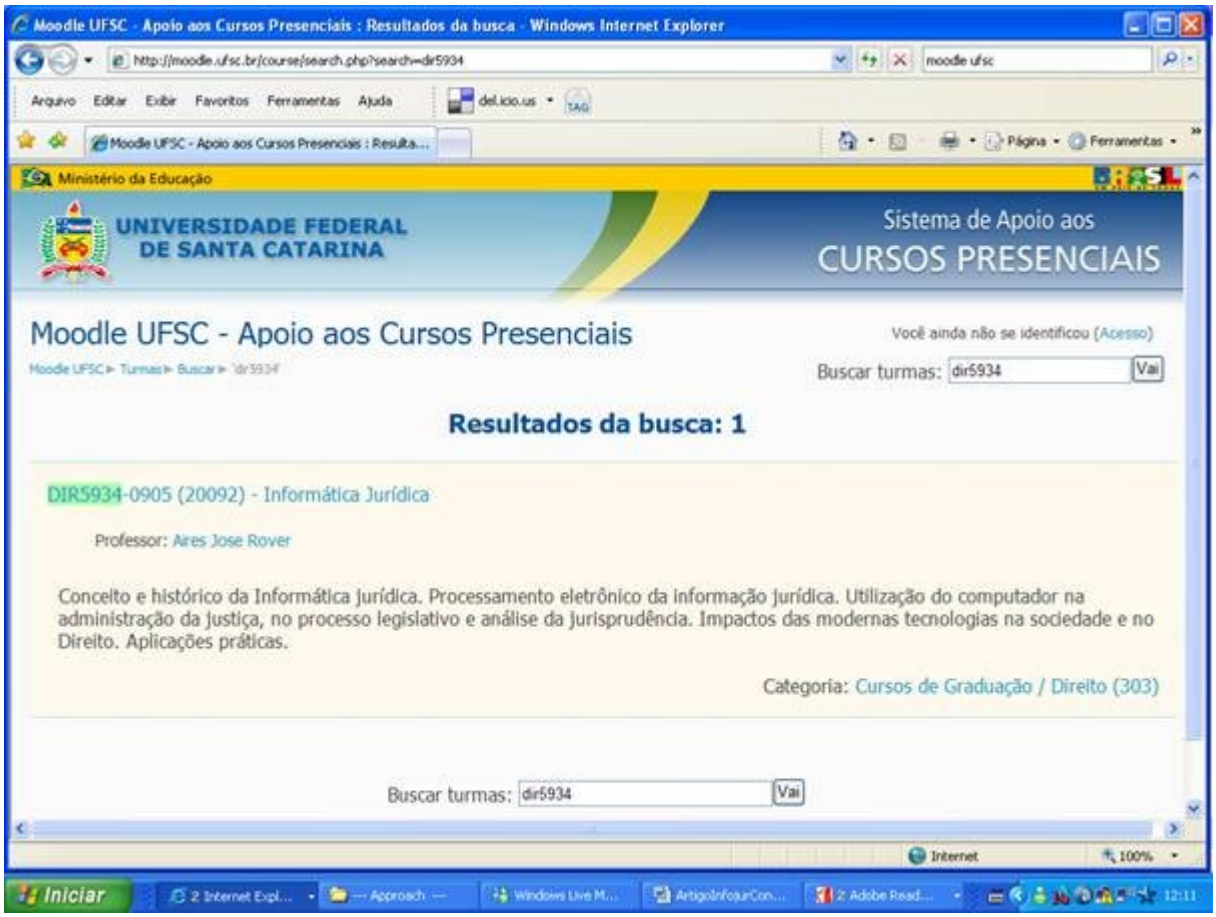

Figure 1 - Moodle interface

UFSC implemented a corporate Moodle at the university because there was a great

demand of e-learning and a cultural dissemination of this tool in the world. Beside this, there is a continuous technological improvement of the platform, made by the Moodle company. The creation of a support group and the integration with the academic system of UFSC was made available, effectively, in 2009. Several lectures and training were made to publicize the potential of this tool. The Center for Data Processing (NPD) of UFSC has structured a support department [15] to personalize help functions and to drive the user in the system.

At UFSC the courses that more utilize the corporate e-learning tool are in the technological area. UFSC's Moodle is integrated into the academic system (CAGR) making it easier for students and for the academic record department, because the information is automatically exchanged between the two systems in a fast mode. For example, if all activities of a subject passing through Moodle, at the end of the academic period, Moodle makes automatically the correction of exercises and calculates the final grade of the student and sending these informations to the academic system.

Students and teachers which use the academic system are automatically enrolled in Moodle system. They need to identify themselves with the system creating a password on first access. Even the content of the disciplines are not yet available in Moodle, the grid of the subjects are already available in the virtual environment, performed by the academic system. The teacher has to make an investment of time and learning to enable their material in Moodle pattern. It is a matter of planning and organization. The texts and exercises can be inserted in Moodle, but the teacher may initially opt for the availability of the bibliography reference and other materials to support the students study [16].

Capote *et al* (2009) reported the use of Moodle in the course of Law at Universidad de La Laguna was a successful experience, despite the h2 work that teachers had to develop: "No cabe duda de que la experiencia ha sido extremadamente satisfactoria, tanto para el profesorado como para el alumnado, a pesar del importante incremento de carga de trabajo que conlleva optar por tal sistema." [17] Capote *et al* (2009, p. 22)

Once the activities are available in Moodle, after a concentrated effort of planning and work by teachers, they have the responsibility to do the update of content and improvements in the identification of new references, so they feel necessary. The exercises can be of different styles (true or false, mark the correct options, choose in a list), including the possibility of use of editing features graphics and multimedia. There is an interesting option where Moodle makes a mixture of the elements of a list of questions presenting to each student a new sequence, difficulting so the illegal copy of answers.

The execution of tasks in Moodle by the users is monitored by the proper system and it generates management reports for teachers, such as:

- How many times a user entered the system;
- How long he was connected;
- The last time the system was accessed;
- Texts that were read;
- Questions that were filled;
- The control of access within the pre-established period by the teacher;
- Correction of the answers based on the template and weights provided by the

teacher;
- The student's grade by questionnaire and by the group of questionnaires in a period;
- The consolidation of these class-level information for the school management; and
- The transfer of data to the academic system, if the teacher so determines.

As Moodle is a corporate system it is able to provide strategic informations to the university management as a whole. Informations about the student interaction with the system can now represent the single most analytical element of the school administration. From this information could be created summary maps based on an accounting plan that allows consolidation in different levels like classes, professors, majors, courses, centers, and large areas of the university. Thus, the university will make its management based on the most basic unit of the university, which is the daily interaction of student and teacher in the classroom (presencial and / or virtual) at the campus. The most important is that the entry of data will be made by the system itself, an activity that was make before by the teacher Who transcribed the grades to the system in a manual work.

The system manages the schedule of activities enabling students to make the virtual exercises integrated with the presencial work as planned. With the use of an e-learning tool to support classroom courses, the university not only provides an alternative for the improvement of teaching and learning, as well as improves its management system.

At 2009 first semester the discipline of Law and Informatics released four activities in Moodle. Each activity had a reading text which was always available and an exercise form, which was available during a limited time, with 15 questions to mark as answer, right or wrong. The activities were on the following topics:

The work in the Information Society;

- Computer Crimes;
- Intellectual Property and the Digital World; and
- System Security and Digital Documents.

Like the Law course that uses the Moodle of UFSC, following Capote *et al* (2009, p. 24) LEFIS Network also uses Moodle for Proyecto Law & ICT Shared Virtual Campus.

4. Using blogs

The blog [18] of the discipline Law and Informatics was initially created as a communication tool among the monitors students from the Law and Informatics Laboratory (Linjur) at UFSC. They post their daily activities and made links to articles and power point presentations, contained in the repository Buscalegis [19]. The suggestion to the teacher to use this blog for the discipline activities was from the monitors [20], who were already students of the discipline and had not previously used the blog. Thus, the monitors had na understanding that other colleagues could also share this experience. The monitors have the mission of support to other students for the use of the informatics resources of the Linjur Lab.

Capote *et al* (2009) report their experience with the use of blogs, by the Faculty of Law, at the Universidad de La Laguna (Spain), which is a member of the LEFIS Network, and used

a blog for communication of students, teachers and other participants of a project

Para ello se requería un instrumento que combinara la efectividad comunicativa requerida, con la facilidad de manejo por parte del personal docente. La respuesta vino de la mano de la experiencia que, individualmente, habían llevado a cabo otros profesores mediante el uso de estos blogs. [21] (Capote et al, 2009, p.9)

The professors of the Faculty of Law of the Universidad de La Laguna have used blogs to provide the following:

- Material de trabajo para los alumnos (enunciados de casos prácticos, actividades complementarias y cuestionarios).
- Normativa.
- Resoluciones destacadas (jurisprudencia relevante y otras resoluciones de órganos administrativos).
- Noticias y recortes de prensa de contenido jurídico.
- Otro material complementario (presentaciones en formato digital elaboradas por el profesor o por los compañeros, apuntes, etcétera). [22] (Capote et al, 2009, p.10)

The use of blogs as Capote et al (2009) reported, resembles the concerns of professors of Law and Informatics, as the availability of materials, but they do not refer to students can make posts. The use of blogs has proliferated in the knowledge society, because it is an easy, fast and economical way to express opinions themselves through the internet.

Figure 2 - Blog´s interface

There is no need to be a technician programmer or expert in computer technology to develop this type of website. The traditional use of a personal blog has given space to more people, in this case the students of the discipline Law and Informatics, to issue opinions on the posts, by themselves.

In the first half of 2009 the blog was adapted to the discipline of Law and Informatics, and a concern of teachers was its ease of use for the student, for the contributions of students to be effective. Features available on the blog were being updated during the semester, considering the need of students and teachers, to reach a stabilization point of use as shown in Figure 2.

The blog should be a kind of portal for the discipline, where the student meets all the guidelines (through the posts and links) for their good performance in the discipline. The visualization of posts from colleagues, plus the guidance of the teacher in the form of posts, must be an inspiration to the student, "who does not want to be left behind" in relation to the others members of the group. So, the student starts to interact effectively with the blog.

Some reasons to choose a blog tool:

- Ease of use;
- User-friendly interface;
- Creation of a site in an economical manner;
- The student need to know basically how to post and comment;
- The need for the user to have a login and password to make a post, which facilitates its identification and limits only registered users to post;
- Content can be viewed and commented by external public;
- Students already had their own blog;
- Possibility to classify the posts by tags;
- The Google Company offers a free blog tool;
- Possibility to insert pictures and photos to illustrate posts; and
- Teachers can receive posts in their own working email via the function "follower of the blog."

The blog website can be updated with new gadgets [23], which makes the interface more attractive and functional. Each day gadgets producers make available new free of charge gadgets, which are offered on the Internet. For example, a spreadsheet created by the teachers of the discipline Law and Informatics using Google Docs, for the consolidation of activities and grades, was released in the form of a gadget in a blog post and is automatically updated every 5 minutes in the net. The same spreadsheet can be referenced in more than one blog or website. Other features of gadgets that were tested in the blog are:

- Location on a world map of the IP (computer address in a net) of the user that is accessing;
- Flag of the country of user access;
- Incorporation of dynamic spreadsheets;
- Incorporation of a group of links (as a window); and
- Location of georeferenced elements in Google Maps.

In the blog only teachers and students could post, who were previously registered with their usual emails in the configuration environment of the blog. The teacher enabled in the settings that the blog can be found by "search engines" on the Internet.

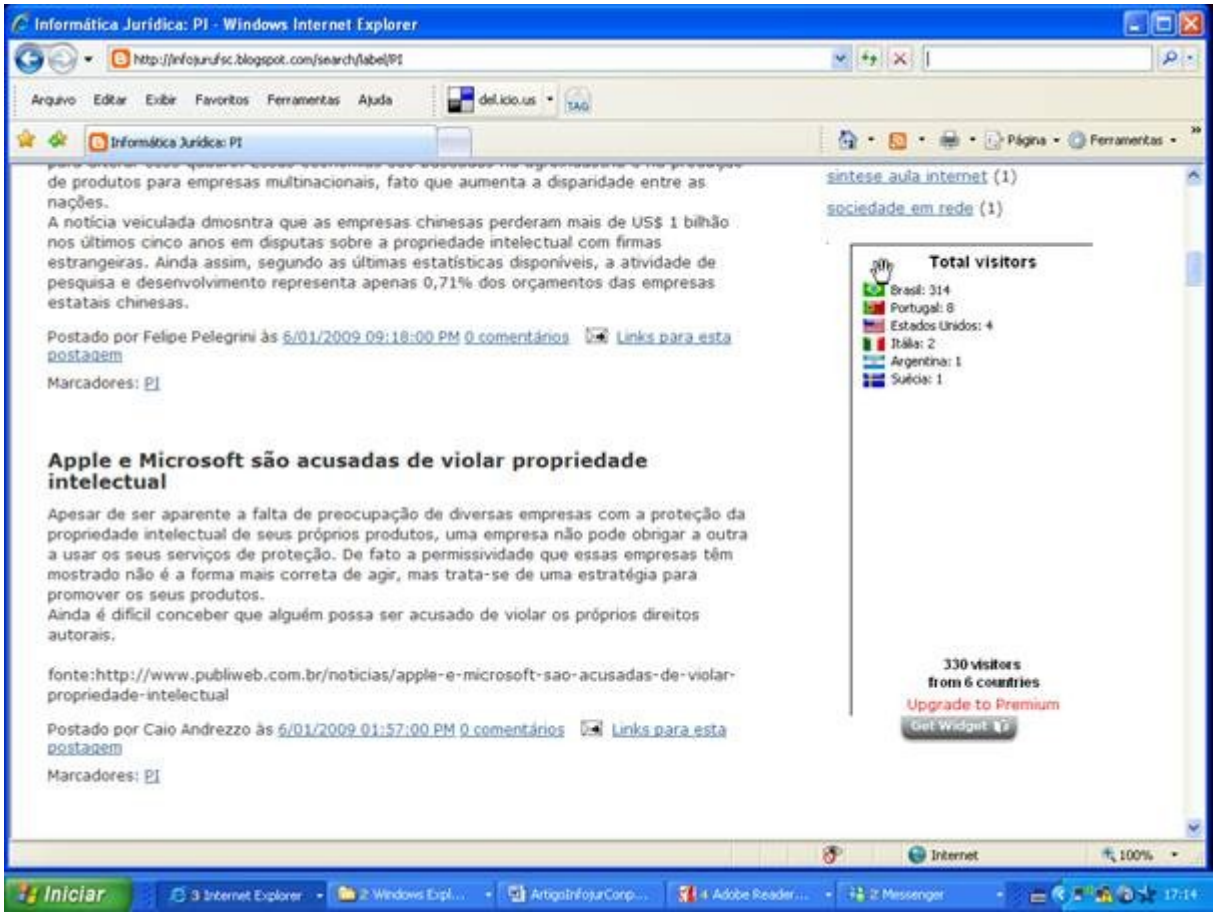

Figure 3 - interface where gadgets show the user origin country

Make the blog available to external readers allowed people outside the academic environment and which are interested in law and informatics topics, found the blog and addressing what had been written on the blog by the students and make comments about. The blog became a repository of law and informatics information issues, with global visibility, as attested to the gadget that tells you that country in the world are the users, in Figure 3.

Besides the preparation of lessons, a great effort from teachers to turn available the blog, was that they acted as managers of the systems, and also need to help those students who until then not had contact with computer use in a monitored system. In an upcoming issue of discipline, it will be easier for teachers, since the structure will be assembled by simply improving the interface and update the contents if necessary.

Students had a commitment to post in the blog system, during the semester of the course, in four opportunities, classifying the register with the activity tag, concomitant with the activity that was also being held in Moodle system:

- Tag teleworking (Work in the Information Society);
- Tag infocrime (Computer Crimes);

- Tag PI (Intellectual property and the digital world); and
- Tag Seg (Safety and digital documents).

The student work to make a post was to search a news on the Internet or from another source (newspaper, magazine, book article) about the topic (tag) proposed. In the post was placed a post title, a synthesis of the news with the description of the source (usually a link to a website), and a critical commentary of the student. In class after posting, the students presented their posts, which were commented by colleagues. In the end of the round discuss, the teacher made a conclusion on that subject.

5. Final of the semester and research work

In addition to the blog system and Moodle system intermediate activities, the students developed one of the following propositions for the end of the semester:

- a review paper of a book indicated by teachers;
- an article on a subject related to the discipline and discussed with teachers before; and
- a survey of government websites where teachers indicated which websites would be researched, according the agreement with the Lefis of UNIZAR.

In the last meetings of the discipline, beyond the delivering of their work, students had the opportunity to present to the class what they have done. The archives of work returned by students were deposited in the electronic repository Buscalegis. In the blog, besides the student's name and job title is a link to the archive in the Buscalegis.

The videos were filmed by the teachers and their storage occurred at the specialized site for movies Youtube [24]. These videos are linked to the student's work list on the blog [25] of Law and Informatics.

At the end of the first semester of 2009 the teachers applied with the students a survey about their impressions of the discipline. With the answer consolidation the teachers could supplement their own observations and provide changes, if necessary.

Enrolled students (regular and isolated [26])	43
Dropout students (FI) (-)	08
Students that concluded the discipline	35

Table 1: Enrolled and dropout students

According to Table 1, 81.4% of students enrolled at the beginning of the semester completed the course and 18.6% dropped out. It was not researched the reason for withdrawal, but some informally said they had scheduling conflict with the discipline and their professional job.

Students of the book review	18

Students of the article	07
Students of the Egobs research	10
Total	35

Table 2: Final semester work of the students

According to Table 2, 51.4% of students opted for the book review, 28.6% for the Egobs research and 20% opted for the article. To prepare an article undergraduate always proved to be somewhat more difficult, mainly because students are on the 1st and 2nd phase of the course, maybe that's why 20% took this option. Moreover, maybe, it was student's first contact with an article.

All 35 students who completed the discipline, completed the questionnaire too, which is in Table 3, already with the average rating from 1 to 3. This questionnaire, for technical and time reasons, was sent to students via email when the discipline had already closed. The guidance given to students was: Inform the nearest possible grade for your performance on your point of view: 1-low, 2-medium or 3-high.

Question	Average
a. In understanding the teachers presentations	2,7
b. In the activities of texts reading	2,7
c. In writing activities	2,6
d. In research activities in the computer network	2,5
e. In presentations of study reflections on classroom	2,3
f. In final work preparation and presentation	2,4
g. In understanding the nature of the digital revolution and its different aspects	2,6
h. Understanding the impact of the digital revolution in law professions	2,4

Table 3 - Students Performance

The research presented in Table 3, shows that the final average on all questions is between 2 (medium) and 3 (high). This can be considered good level. What draws attention is that the item with the lowest average is the "e." which refers to the presentations made in class about the news posted on the blog. For an upcoming issue

this research would need to create a wider range of grades and others questions.

The final overall average grade of the students was 8.2 and are available on the blog of Law and Informatics in a specific link. This average score can be considered high, since the grade for the approved students ranged from 6 (six, which is the minimum passing grade) to grade 10 (ten). This shows that although the class lookss homogeneous, it was a different performance of students, which can only be effectively realized, after the computation of all partial notes.

This student's final grade was the average of three requirement as: grade from the activities of Moodle (provided automatically by the system, which made the correction of four questionnaires based feedback information from the teachers when they implementing the tasks), participation grade (pointing from the effectiveness of classroom and of the 4 blog posts) and final work grade (from the teachers manual correction of the articles, book reviews and surveys delivered and their presentation in the classroom).

During the discipline, students and teachers had the opportunity to discuss and use in practice the technologies of the blog (editing posts), Moodle (e-learning), Youtube, video production, emails, Buscalegis repository, and so, developing a cyber culture. For Lévy "cibercultura é um conjunto de técnica (materiais e intelectuais), de práticas, de atitudes, de modos de pensamento e valores que se desenvolvem paralelamente ao crescimento do ciberespaço." [27] (Lévy, 1997, p. 17)

With so much interaction between people (students and teachers) mediated by tools (computers and software) learning occurs and the knowledge came to light. The assumption is that knowledge comes neither the subjects nor objects, but of their interactions (Piaget, 1976).

6. Conclusion

The world society goes through a time of obtain knowledge using the application of new ICTs (information and communication technologies). But the most impact this society are the new Internet applications. As shown, this new moment influences the shape and dynamics of a classroom where the presencial education uses the resources and methodology of distance education (e-learning). Offering more than one Internet tool for students, teachers seek what each one has of best for achieving the goals of student learning.

The corporate UFSC Moodle system has proven useful in traditional tasks, such as availability of reference sources and study of text files, presentations like power point, spreadsheets, and exercises to be answered by students. Managing student access as preset timetable, the correction of exams, and the consolidation of the grades helped a lot the teachers in administering the discipline.

The integration between Moodle system and the academic administrative system showed the investment made by the university to facilitate its own management and operation, and gave the teachers and students an alternative in learning. Because it is a tool with many options (not all necessary for the implementation of a basic discipline), and whose technical support from the university still does not satisfy the novice user, its use still

needs to be planned in advance. The negative point of Moodle is the not free access to this knowledge by the community outside the university because only authorized individuals (on several levels) can access a particular content. Thus, the free dissemination of knowledge is not occurring.

On the other hand, the blog system proved to be not so rigid in his administration as Moodle, and enabled the student's creativity in his manner of expressing himself in posts and visibility of their views, which is possible with a blog on the web. Blog tool also allowed for the continuous improvement of its interface with the change of layout and integration of new website links and gadgets. This generated culture has enabled students to have a better understanding of this tool, and they have appropriated concepts and technology, and put their own blogs on the web.

The most important thing is that even if the student has completed the discipline he can access the updated content on the blog. With the history of the blog posts generated about defined tags, students can use it as a resource for their academic work as well the professional lawyer may use the blog to see "what is being discussed in academia". Perhaps in a future edition of the discipline, the list of emails that have been used, can be changed by another tool.

As seen, the generation of knowledge occurs in a h2 way so solid is the interaction of the people, then a concern in the discipline was to provide different tools to improve the qualifying of communication skills of people. "A profissão fundamental do presente e do futuro é educar para saber compreender, sentir, comunicar-se e agir melhor, integrando a comunicação pessoal, a comunitária e a tecnológica." [28] (MORAN, 1997, p. 8)

In conclusion, the discipline of legal data has proved a fertile environment for discussion and testing the potential of various Internet technologies aiming to transmit knowledge to the student during their academic life on campus and as well to keep him a communication with the discipline, working as lawyer professional in the knowledge society. o Moodle, possibilitando a criatividade do aluno e a visibilidade das suas opinihor para atingir os objetivos do aprendizado d

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[1] University Federal De Santa Catarina, Florianópolis, Brazil

[2] Distance education is the planned learning that normally occurs in place other than a teacher and as a result requires special techniques of course design, special instructional techniques, special methods of communication, of electronic or otherwise, as well as organizational structure and administrative arrangements.

[3] To educate is to collaborate teachers and students in schools and organizations - to turn their lives into permanent processes of learning. It is to help students in constructing their identity, their personal and professional way - from its living project, the development of their comprehension skills, emotion and communication to enable them to meet their personal spaces, social and work and become accomplished and productive citizens.

[4] Professor Luiz Adolfo Olsen da Veiga, now retired from UFSC, was the great pioneer of Law and Informatics subjects at UFSC. Master in the area, he won all the conservative opposition something common in situations of innovation in Law spaces. He idealized the discipline Law and Informatics in undergraduate and postgraduate courses in Law Course at the UFSC. He also created the Laboratory of Law and Informatics - Linjur, with the help of Mr. Marco Antônio Ferreira de Melo Machado and Mr. Aires Jose Rover. The year was 1990.

[5] http://www.egobs.org/

[6] http://www.lefis.org/

[7] Tag means a marker in the Internet environment and its use occurred in the blog to classify the posts.

[8] http://www.lawict.eu/

[9] •Social dimension: promotion of equitable access to university education and social inclusion;

• Promotion of lifelong training/learning "over a lifetime";

• Employability: connection between teaching and working market needs;

• The teaching focused on student learning is the primary mission of higher education;

• Linking education, research and innovation;

• International openness

• Mobility of students and teachers;

• Analysis of information for the purposes of relying on methods to measurement of progress: suitable indicators;

• Tools that can express multidimensional transparency of the reform: to enable the participation of all stakeholders, namely all social agents, in higher education;

• Multiple sources of funding, allowing equal access and maintaining the autonomy of public institutions of higher education; and

• Detailed characterization of these objectives/priorities can be seen in the contents of "la Declaración".

[10] As it has been expressed the compilation of data through the surveys are made boot professors and students. The results, also, are published in Web pages (www.egobs.org), being accessible to all interested person that can know and say about the experience.

[11] http://ambiente.sead.ufsc.br/

[12] http://www.uab.capes.gov.br/

[13] http://moodle.ufsc.br/

[14] http://moodle.org

[15] Help Desk: http://ead.moodle.ufsc.br/ , email admin@moodle.ufsc.br

[16] O modelo ainda predominante entre os professores é a disponibilização dos textos em suas pastas específicas nos quiosques de cópias, ou o encaminhamento dos arquivos para uma lista de emails. The still prevalent model among teachers is the availability of texts in their specific folders at copies offices, or the email of text files to a mailing list.

[17] There is no doubt that the experience has been extremely successful, both for teachers and for students, despite the significant increase in workload leads to opt for such system.

[18] http://infojurufsc.blogspot.com/

[19] Buscalegis is an electronic magazine with pertinent themes to Law and is disponible at http://www.buscalegis.ufsc.br/revistas/

[20] The monitors students of the Laboratory of Law and Informatics are selected from an announcement that demands that the student has already completed the discipline Law

and Informatcis. For the reason of the monitors they could use the structure of the laboratory, the selections are quite popular.

[21] For it was required it an instrument that combined the required talkative effectiveness, with the handling easiness for the educational personnel. The answer came from a individual experience that had carried out other professors to the use of these blogs.

[22] • Work material for students (statement of practical cases, complementary activities and questionnaires).

• Normatives.

• Highlighted resolutions (relevant jurisprudence and other decisions of administrative bodies).

• News and press cuts of legal content.

• Other supplementary material (presentations in digital format developed by the teacher or peers, notes, etc.).

[23] Gadget is a small software function that can be incorporated into an existent website.

[24] http://www.youtube.com

[25] http://infojurufsc.blogspot.com/2009/09/informatica-juridica-20091.html

[26] Regular students are from the Law Course of UFSC. Isolated students are students from others courses of UFSC or from others universities, on the most from Law courses.

[27] Cyber culture is a set of technical (material and intellectual), practices, attitudes, modes of thought and values that develop parallel to the growth of cyberspace.

[28] The fundamental profession of the present and of the future is to educate to learn to understand, feel, communicate and act better, integrating the personal, the community and the technological communication.