

# The Randomization of Digital Law Between Object and Purpose: The Cases Between the Application and Expansion of Digital Law

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**Abstract:** Nowadays, a wide range of technology is used in the most varied areas of practical life. This phenomenon, which has its bases solidified in various business instruments, whether public or private, both have important institutional consequences in the information society. Such a society is characterized by access to compiled data and the treatment of these data in the production of information systems. All this phenomenology leads us to understand the bias of this expansion in the labor market and the counterpoint of this with the expansion of Digital Law, which, in short, offers a broader space and with demands from internal substitutes more connected to the information society and the desires of these and its simplest peculiarities within the spectrum of its socio-legal nature. The objective of the work is to realign the properties of information systems within the perspective of digital law, which aims to guarantee the legal relationship of this spectrum in civic life. The specificities of this objective range from gratitude for the privacy of data, its treatment and usability of information to the breadth of human knowledge and connection with the digital reality of the globalized world. The inductive method is used, where particular ideas encourage us to list general points in the study link on the topic. Research was also carried out, through bibliographic and documentary techniques that preliminarily converge to the subject in question, allowing an expanded and connected view of digital law and reality in various information subsystems. The conclusion that was built from the elements translated in the research clipping allows us to infer that digital law is a random process and that it will contribute to the development of new utilities of law in the area of knowledge in order to safeguard the very elements of digital law as an organized entity.

**Keywords:** Technology, Digital Law, Information Society, Phenomenology, Society Information

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## 1. Introduction

### *The General Purpose*

The general objective is to carry out an analysis of the structure of Digital Law within its aspects of expansion and expansion in the scenario of labor, market and institutional realities. demonstrating to what extent the phenomenology of its technical-legal properties effect the best length in the information society. The Problem: "What phenomenon should be considered in Digital Law, its expansion or its breadth? Research typology: The method used in this

research will be guided by prioritizing the listed facts, using the bibliographic method, to reach the intended objective, added by thematic jurisprudence that will support the knowledge to be diagnosed. Justification: The Theme in question relates to its main objective, which is the phenomenal study of Digital Law and its gradients of expansion and amplitude. In this aim, a pedagogical-instrumental relationship is sought in order to reach the understanding of which phenomenal events make Digital Law perfect and which linked gradients can be resized within this perspective. The objective of this work is justified by the

axiological dimension (valuation) within the ontological dimension (individual being) and sociological dimension (society) that integrated the information and compiled data intending to arrive at the verification of which phenomenal eventualities the digital law and its intricacies can impact our everyday life in the social context. 1.5 Preliminary notions: Nowadays, it is easy to understand that technological insertions and their use in the most basic day-to-day activities result in utilitarian gains for the entire population. Much of this brings emblematic reference to the development of the information society, and the related areas of law that today presents itself as a contemporary evolution. In this sense, it is then necessary to resume a broad reflection on the subject within its pragmatism, from the collection of information, predicting in summary that such disclosures and lucubrations are necessary for the development of today's society. The present study, based on a previous investigation of its object, sought to undertake which statements can be diagnosed with their pros and cons in reality, and in this magnitude in a series of jurigena-digital presentation can erupt affirmatively for today's social enterprise. Another key point of this work is in the perspective of the structures on which this monograph was based, in its pre-textual, textual and post-textual elements, obeying the academic singularity in terms of methodology and scientific appropriation.

## 2. Development

### 2.1. Ethics and Ethics Professional

Within an alleged analysis of the phenomenology of digital law in our days, the proposal-problem seeks to find the most elective content of this segment whose object is to simplify and reduce bureaucracy in people's daily lives. It is important to note that in the quest to meet the purpose of an academic product, which, in short, makes a direct allusion to the discussions of which impacts this phenomenology of digital law reproduces in our days and the expansive and amplifying signs of this assertiveness in the reality of the digital society.

Conjugated these basic premises, it is relevant for a research to surround itself with previously conceptual elements on the subject in order to finally list the basic premises of the excerpt shown above. Therefore, deontological reflection is necessary so that some technical precepts already suggested perfect the consistent aspect of the research.

Another point is in the expanded discussion in which this work seeks to carry out, that is, a redesign of the pertinent aspects of this theme with all theoretical and practical efforts in order to translate the best effect into the phenomenology of Digital Law present in our organizations and still open space for research future ones have an embryo on the theme worked here academically. The development of this work has the sole objective of unveiling the most valuable precepts of digital law for our days.

### 2.2. Tech Jobs

When we talk about the use of technology today, it is

almost certain that, to a greater or lesser extent, we have already identified something about the subject. However, from the perspective of this work, we will previously revisit concepts related to them for a better elucidation on the subject. In this sense, greater efficiency can be connected with the following precedents:

As simplified as these three conceptualizations are, they allow the initial analysis of the discussion about technology and we will start talking about the set of processes used in a given area, in this we are talking about theory and practices allied to achieve a goal [1]. (...)

(...) Can you see, in this initial explanation, the action of the human being in everything that refers to technology?

Usually when you talk about this subject, you immediately think of cutting-edge technology, space probes, nanotechnology, anyway; however, the transformation of animal skins into clothes, the elements of nature in domestic utensils, the use of fire, among others throughout history, are examples of technology.

(...) There is greater complexity when we analyze technology from a technical point of view, as we include the point of action of human activity and increase the data on what technology is.

As already exposed, technology is in all means, be it scientific, cultural and social; with this we confirm the statements that all human actions are technical and, therefore, technology is intimately disseminated, as recommended by ABBAGNANO, 2000 (...) BARBOSA, Ana Clarisse Alencar. et al Apud (ABBAGNANO, 2000): Special Topics: UNIASSELVI. Indaial: ed. Uniasselvi, 2015 p 95-96. [1].

Observance both from a rudimentary point of view and from a technical point of view allows us to understand the phenomenon of technology for our days, and jointly broaden the vision of its constant use in labor, scientific, cultural, entertainment relations in related and similar areas. Technology allied to the principles of science allows us to verify an amplitude in the sphere of human achievements, which in a broad sense spread to the entire universe in the achievements of individuals in factual situations of day-to-day life.

Another important connection when evaluating technology is the use it reverberates in today's artificial processes. A clear example of this performance is in immersive environments in "virtual realities" that become "real events" given their gradients in terms of verisimilitude and programmatic approach that these sensitive environments effect in the reproduction of visual/sensory realism and its impact on the individual while biased by technological determinism. When we talk about the use of technology, a wealth of information allows us to intertwine society between knowledge and technological governance within the power relations intertwined in this pragmatic conjunction. In the words of BARBOSA ibidem et al AULER and DELIZOICOV (2006) this perception finds its most assertive and outstanding form. Let's see the excerpt they identify and which details this random quadripartite.

"We have already seen the definition of technocracy, in

which science becomes right about everything and everyone. Well, this view presents a model of linear progress, whereby social development is just a consequence of the development proposed by science, which in turn would generate technological development and, only then, would it reach social development.”

Figure 13- Progress from the technocracy point of view:

SCIENCE TECHNOLOGYECONOMY += SOCIETY

Source: adapted from AULER and DELIZÓICOV (2006). BARBOSA, Ana Clarisse Alencar et al AULER and DELIZÓICOV (2006) Special topics: UNIASSELVI. Indaial: Uniassevi, 2015 p 99). [2].

The context of applicability and use of technology is closely linked to the society that today is called the information society. Indeed, this perspective is a combination of three factors: Science, Technology and Economy, which from this preview it is possible to understand the real practical effect of technology in contemporary society, or in words often structure it for such a way. It is important to allocate the economy as a propelling source of economic development, as a structural basis for the promotion and increase of technological insertion in the dimension of reality. Let us observe the words of (TEBCHIRANI, 2012 p 161) on the subject:

Aiming to encompass the human dimension within the concept of economic development, considering its social, political and cultural aspects - It was conceived by the Indian economist MAHBUB UL HAQ (1934-1998), together with the winner of the 1998 Nobel Prize in Economics AMARTYA SEN, The Human Development Index (HDI) is a general and synthetic measure of human development, which currently considers:

Longevity, measured by life expectancy at birth:

National income estimates;

Schooling for children and adults.

Published for the first time in 1990, the HDI has become a world reference, and represents a key index in the development programs of the United Nations.

(TEBCHIRANI, Flavio Ribas. Principles of economics: Micro and Macro. Intersaberes. 1st edition 2012. Curitiba, 2012 p 161s. [3])

Let us observe that the impetus given by technology translated into economic precepts in continuous life allows us to enter into the central concept of reality-opportunity that the economic dimension can re-dimension the technological concept and of a led society is always translated from technological biases of information. “The first tripod bias of the construction of the information society is already referable, now we will move on to two key concepts: Science and technology” (TEBCHIRANI, 2012 Op cit p 161). Let's observe from the technical environment as a source of scientific structuring in the informational society.

(...) The technical period sees the emergence of mechanized space. The objects that form the medium are not just cultural objects, they are cultural and technical at the same time. As for space, the material component is increasingly made up of the “natural” and the “artificial”

(...)

(...) machinic technical objects join natural reason to its own reason, an instrumental logic that challenges natural logic, creating in the affected places, mixed or conflicting hybrids, technical objects and machined space are locus of “superior” actions ” thanks to its triumphant superposition to natural forces. (...)

(...) This union between technique and science will take place under the aegis of the market.

And the market, thanks precisely to science and technology, becomes a global market. The idea of science, the idea of technology and the idea of a global market must be seen together, in this way they can offer a new interpretation to the ecological question, since the changes that occur in nature are also subordinated to this logic. (our emphasis).

(BARBOSA, Ana Clarisse Alencar Op Cit 2015 p 102, among others [4])

In this excerpt it is already possible to observe a clear perception between the use of science and technology in the reality of the market, in this tone science and technology perfect the structural content of society, by combining machinic objects with the content of natural reason. An observation by the author (BARBOSA, 2015) was the content of resignification between the idealist culture within an instrumental logic subordinated to the use of technique and science that “naturalizes” the technological-scientific effect in various areas of the information society. We observe that the exchange of these ideas and the endo-content dialogue with the central aspect of reality, which is the scalar use of technology in the assertions and dictates of social reinterpretation by the technology employed.

### 2.2.1. Digital Right

BeforeIn the previous context, we were able to abstract the use of technology in social reality and how it was perfected in its instrumental aspect in the reality of individuals and in their search within social realism. society already realizes that we have a new field to be worked on in the legal field, the so-called Digital Law. In the words of (TERRA, 2021 p 10 et al) this concept becomes more assertive.

Digital or Virtual Law is an evolution of all branches of Law that interact with the digital society or the digital environment. It encompasses the existing principles and institutes, as well as innovates them in its various areas of activity, such as international law, Intellectual Property Law, Constitutional Law, Human Rights, Bioethics, scientific and genetic research, Civil Law, criminal, administrative, tax, financial, environmental, procedural, social security, labor, electoral, medical law, among others. (Org.) OAB-Niterói. *Ibidem: et al* Candida Diana Terra. Digital Law Booklet: Digital Law Commission - OAB-Niterói. Year 2021. ed. OAB-Niteroi. Rio de Janeiro, 2021 p 10) [5].

The interoperability of Digital Law is clear, a priori, we can determine that its origin derives from the evolution of several mechanisms that, integrated into the sphere of digital

systematics, set in the legal field and brought an important niche of action in the segmental field of the legal system. In an exhortation on the fundamental bases of this new area, we can cite several segments of the digital society that illustrate this assertion well. At first, we will profile the paths of this legal action in the public and private sectors, noting several links of this action within today's society. In the words of GOVE, 2021 p 28) in verbis:

(...) The issues of the pillar of minimum infrastructure necessary for the initiations of digital transformation to be supported and, additionally, the presence of structuring technologies that support internal and external processes of the municipal administration. within this pillar, the item best evaluated by the municipalities was "backup routines", with an average of 50.0% of respondents stating that they fully answer the question.

In recent years, city halls have been the target of cyber attacks, and we can see that even though they do not have emergency modifications as well established as indicated in one of the items of the institutional capacity pillar, 80% of respondents state that at least in part, perform backup routines.

On the opposite side, "Artificial intelligence", "Internet of Things" and "Interoperability" are among the data less worked on by the municipalities participating in the survey, all three presenting a lower average score for data and more than 50% of respondents declaring that they do not meet the item.

(COELHO, Berno; ALMANÇA, Fernanda; PIZZINO, Jessé; PADIAL, Luis; FIORI, Rodolfo et al. Panorama of Municipal Digital Transformation in Brazil 2022. GOVE, 2022 p 28) [6]

Let's see that, in an embryonic way, the pursuit of secure data and its traffic through various digital means has strongly impacted the Public Administration, in this regard, Digital Law postulates a context of digital security (security information), so that all citizens have a minimum of reliability in the systems current digital. In this desideratum, we deal with digital transformation not only under the juridical focus, but also as an element of sociological focus, as it embodies and involves a larger spectrum within the radius of its activities spread by the demands of the whole society in the treatment, use and purpose of data whether they are open (in the public domain) or closed (in the private domain), because in both cases the systematic approach in Digital Law is present, generating changes and immediate impacts. It is also important to endorse the character of Digital Law from the current perspective that is in its connection with the information society, to understand several cases that profile the data and give the tonic to this important area of law in contemporary times. In this regard, it is important to conceptually delimit what the digital environment consists of and then contextualize it with Digital Law. In the words of (CAMARGO, 2021 p 10) assuring us technically:

[7] The digital environment stems from human creation; it is an intangible, virtual heritage, a set of conditions, laws,

influences and interactions that take place in the digital environment, through connected software and hardware, and that end up having an effect on people, social relations, politics, the economy, the environment physical environment and even in the extraterrestrial environment, since data is collected and transmitted by space artifacts.

*Is the digital environment opposed to the physical world?*

No, it is not disconnected from the physical world where its effects occur, on the contrary, it is part of the real world, which directly or indirectly suffers its influences and effects.

*Is digital law limited to the Internet?*

No. The Internet is just one more means, one of the technological resources in which the digital environment takes place, one of the countless technological innovations that need to be disciplined by digital law. It should also regulate other technological innovations that are to come. Its evolution is fast and dynamic, it follows the new technologies that appear all the time, it follows the evolution of the digital society.

*Is digital law an international law?*

Yes. The globalization of societies, the sharing of technologies by countries as well as by people and companies, the collection and exchange of information that occurs at all times, with effects in all corners of the planet, also require a globalization of legal thought in order to be possible to delimit minimum criteria to be observed by different countries and people. Thus, more and more International Conventions and treaties are emerging in this regard. (Our emphasis)

(Org). OAB-Niterói: Booklet on Digital Law. TERRA, Candida et al CAMARGO, Marcelo. Introduction to Digital Law - Digital Law Booklet: Digital Law Commission. OAB-Niterói, 2012 9 10-11) [7].

The Tonic used by Digital Law, as we perceive it, spreads to the entire information society within two perspectives, one in the MICROCOSM - world of systemic externalities of compiled data and informativeness) and another in the MACROCOSM - world of systemic externalities of structured data) here we can to mention structured aspects such as e-cloud, immersive environments, digital games, etc., spheres that are largely characterized by the digital bias and whose cognitive-behavioral environment needs to be regulated for the own safety of users and their associates of similar products.

As well observed by the author (Terra, 2021) the aspects of digital law set it in various segments of society, from its basic culture as it impacts directly on the physical world, sometimes reforming this environment, sometimes giving postulations in the environment itself, through a character dogmatic, which in the condition of its implement reverberates all secularity of the information and consequently of the data inherent to it. Digital Law is still experiencing major challenges that will be generational to itself, a degree of this finding is preliminarily disseminated, in the culture of companies, in Senior Management, in People Management, in Financial Resources and finally in Process Management (TERRA, 2021). In this case, it

requires a broad reflection on the information society.

### 2.2.2. Information Society

When we talk about broad reflection, we are warning ourselves about the structure of society itself, which has in Digital Law and its externalities a gradient of daily reformulation. In this regard, it is important to highlight what the information society actually is, its intricacies, its more endogenous aspects and its multiple faces within the structured spectrum of society. In the words of (TERRA, 2021 apud CAMARGO p 10)

The digital society is a concept that takes into account individuals or legal entities who are users of the Internet, Information Technologies, data transmission, and even people who do not have access to the Internet or such technologies, as their data is collected and transmitted over the network, often independently of your own knowledge about it.

(Org. OAB- Niterói. Op Cit | Digital Law Handbook 2012 p 10) [8]

The word digital society primarily refers to the concept of “people”, in this singular gradient it is possible to endorse structured and existing environments that need, for a better assumption, a support in public data governance, so that it can stop, through public policies aimed at the fluidity of traffic between people and things codifiable by informational and computational elements to meet the demands of such an excerpt in the local society. this line of reasoning asserts us (ENAP-Government and Digital Transformation and Innovation (FRAGA, 2022 p 22 Apud Ibidem BARBIERI, 2020);

GD Data Governance is a set of practices arranged in a framework with the aim of organizing the use and proper control of data as an organizational asset; Data Governance seeks to organize data aiming at availability, integrity, consistency, feasibility, security, control, etc. (...) ENAP Org.: Data Governance in Digital Transformation- Introduction to data management- Module I. FRAGA, Vanessa de Souza *et al* (BARBIERI, 2000) Content: EVP. Brasília-DF, 2022 p 22 [9]

The information society is therefore based on its fundamental property: Data, and therefore that its decodability, workability and inactivity are figured in responsible platforms that transfer this data in line with effective data compliance that transforms the uniqueness of the subject ( data) with the predicatives of the good assertion of its contents. In this line of reasoning, we are endorsed (CAMARGO, 2021 p 11 et al Cartilha Digital) by encouraging the challenging elements in today's Digital Law:

[10]The central points of a connection for an expansion of the theme in question are due to the fact that there is a multitality of digital law innumerable times, and that in summary a range of situations can fill such a gap in reality, through various instruments legal and political in reality. In this prospecting there are several thinkers, and it is important to highlight some points already portrayed here in the research.

The author(s) above reminds us of the questionability of a responsive system that translates into levels of consequent reportability the penalizing issue and legal coercion in the sphere of Public and Private International Law so that in the systematic usability-utility, that is, between the need for access and the usefulness of access, can guarantee the maternity of the dignity of the human person within the platforms, when this continues to be an object of elementarity and appropriation of Digital Law in a wide spectrum of achievements within the scope of the information society. It is prudent to agree that the information society tends to be squeezed out of its structure by not understanding the physical environment through which this data can travel properly. We are talking about this aspect, because it is about adaptation to the Data Governance system, a kind of conformity of the informational means, therefore its importance is within a more exalted bias, portraying more sophisticated elements to efficiently reach this opportunity in the society of information. In this sense (OAB-Niterói, 2021 p. 12) reorients us from two basic nuances, answering them in two premises, one portraying information security, and the second on allocativeness in a greater number of rules, for this integrality of governance in the desired legal social opportunity.

“(…) Priority should be given to the creation of new relationship principles containing basic and general requirements, as specific standards would quickly lose their effectiveness in space and time due to the constant and rapid evolution of technologies and consequent changes in the virtual and physical world.

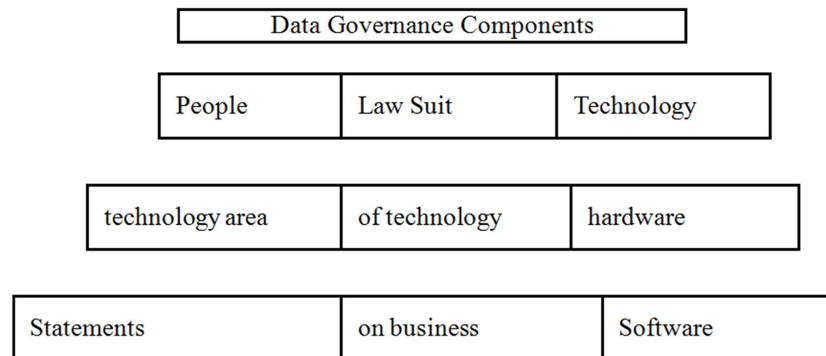
(…)

There are several Treaties, Conventions, Legislation and Normative Instructions, involving the Digital Law, the disclaimers published by the providers continue to be the norms that most frequently apply to the participants of the digital relations. Digital Law, due to its global and constantly evolving nature, tends towards self-regulation, which obviously must comply with the provisions of different legal systems.

(Org. OAB-Niterói. Digital Law Booklet Op Cit 2021 p. 12). [11].

The reorientation reposted by the experts in the legal area proposes us good mechanisms of response and security to informativeness by presenting in the information society two mechanisms already consolidated in the legal practice and that base two fundamental pillars, the dignity of the human person: The first criterion is the security in virtual relationships and the second criterion is the realization that over time it has been consolidated in the international legal sphere, so that we can obtain a common denominator to highlight the best practices of "Data Transit", being able to emerge in its synthesis people and facts correlated with today's digital relationships. Let us pay attention to the spectrum of principled components for GD-Data Governance, where people, processes and technology are purposely integrated. In the words of (ENAP, 2022 p 28).

(...) The components that involve DG concern people, processes, technology. Each of them has a specific attribution in the context of data governance, but all must act in an integrated manner with the purpose of strengthening the data strategy. The following figure demonstrates each of these components with their attributions in specific fields. (ENAP, 2022 p 28)



**Figure 1.** Source: Elaboration- CEPED/UFSC (2022). Adapted from (REGO, 2013 p 121). [35]

Data Governance corresponds at first glance to the best categories that should direct information in its timely, dignified and coexistential context.

### 2.2.3. Information Phenomenology

The study so far makes us confront the information society within its broadest levels, highlighting what we call information phenomenology. It is possible to say that, to a greater or lesser extent, the data and information derive from the structure of the same society that feeds back within a portico of coexistence and phenomenal signs that are the evidence in themselves. The enabling character of the information, although it rests on the platform context of the data, we must be attentive because this immersive environment so illustratively portrays the existing factual-physical context, because, in a methodological approach on the object of study of information and society, we are always starting to such phenomenology. In the words of (BARBOSA, Ana Clarisse, 2015 p 101-104), according to the author, science, technology and society are always revisited from time to time with the phenomenon of information, in this expanded context of her macro vision she aligns us with two important perspectives in this prospection, the first from the perspective of Milton Santos and the second from the perspective of BIJKER:

(...) Milton Santos brings light on the environment and its relationship with CTS<sup>1</sup>. It addresses the issue as space and the succession of relationships between man and nature, as well as that of human organization. In this way, he makes an interesting analysis on the division of geographic space. (...) "The nature of space", which deals with the author's considerations about the natural environment, technical environment and international technical-scientific environment.

The information society is therefore intimately structured from these basic components that alternate among themselves the elements for a good compilation of data attributions in the three existing areas: people, processes and technology.

Use the "Figure 1", even at the beginning of a sentence. Analyze the information carefully.

(BARBOSA, Ana Clarisse. Special topics. Uniasselvi. Indaial, 2015 p 101). [12]

The reference here denotes the scientificity on three divisional optics, the natural environment and the technical environment, and the last object of greater significance the technical-scientific informational environment applied from the STS biases, and within this praxeology redefines the current phenomenon of information society within the spatial vision and remodeling that the technical-informational environment as a social vector configured reality. "The spaces reclassified in this way serve, above all, the interests of the hegemonic actors in the economy, culture and politics and are fully incorporated into the new world currents. The international scientific technical milieu and the geographic face of globalization".(BARBOSA, Ana Clarisse, Op cit 2015 p 103 Ibidem et al (SANTOS, 2006 p 157-161). This is the first remodeled identity between the phenomenology of information, that is, its most powerful aspect that redefined the modern foundations of society seen from the globalizing practice. In WIEBE BIJKER's view, there is a central impact demonstrating the symmetry between the technical, political, and economic aspects of information within the phenomenological aspect of socio-distributive impact. Let's see:

(...) The "relevant social groups": Are those directly related to the planning, development and diffusion of a given artifact; In fact, it would be in the interaction between the different members of these groups that the artifacts are built. In this process the actors do not act randomly, but according to specific patterns, that is, they act from technological structures" to which they are linked; this central notion, in this analytical-descriptive framework is broad enough to include theories, concepts and strategies, objectives or practices used in solving problems or even in decisions about uses, as it does not apply only to specialized professional groups, but to

<sup>1</sup>CTS= Science, Technology and Society

different types of social groups. According to BIJKER, there are different degrees of inclusion in these structures, that is, of involvement.

(BARBOSA, Ana Clarisse, 2015 p 104 Op Cit et al (BENAKOUCHE, 1999 p 11-13).

The context by the two authors allows us to remodel the space of actions and interactions between science, technology and society, and to visualize the informational aspect from this phenomenology. And within this aspect of interaction between the CTS and information, the phenomenal highlights are numerous, sometimes denoting a more centralized aspect, sometimes connoting more decentralized aspects within society. However, the vertex of these propagations holds a radical in the information in the set of propagated, codified data of society that expand and remodel when confronted within the scrutiny of the decodability of the means that propagate and disseminate them permanently.

The phenomenology of information therefore rests on the interaction of these singularities within their phenomenal events through processing, transfer and preservation systems, where secrecy reigns only for the other in the relationship, but in counterpoint it also presents a publicity charm when it holds the processed information and decoded in time and space in practical executions in this punctual instrumentality. At this point, it is important to highlight the great evolutions of the industrial age that changed our world and made the allocation of information essential as the maximum feature of our new economy, the digital economy. We observe (APRIL, 2013 p 287)

The industrial revolution is the process of transformation of the agrarian economy based on manual work, into another one disseminated by mechanized industry, which is characterized by the use of new sources of energy and machines, the specialization of work, the development of transport and communication, and for the application of science in industry. It begins around 1760, in England, which has accumulated capital due to commercial expansion, naval supremacy and deposits of iron and coal (...)

(...) From 1870, the II Industrial Revolution began, marked by the use of new energy sources (electricity and oil), the replacement of iron by steel and the creation of the assembly line, idealized by businessman Henry Ford (1863). -1947) already in the twentieth century (...)

(...) The III Industrial Revolution starts in the 1950s with the spread of multinational companies and computerization, and nuclear energy also appears.

(Org) ZOCCHI, Paulo et al Almanaque Abril. Year 39. ed. April. São Paulo, 2013 p 287) [13]

It is important at this stage to verify that the impetus given by the economic power of nations was catalyzed by the informational aspect, that is, a combination of resources, techniques and knowledge expanded by aggregated information. Nowadays, we are in the IV Industrial Revolution, that is, the information age, and this space contributes a lot for them to enter into the most immaterial aspect of social relations, the coexistence between work,

leisure and life have been recontextualized through access to informatization, in other words to starting from the information structure and transferring it to the individual in their daily interrelationships. Let's see a finding of this bias in IT today. *"Information Technology, the discovery and development of new materials, changes and oscillations in market structures and the ability to compete and intra and interpersonal relationships seem to be elements that most permeate work relationships."* (BARBOSA, Ana Clarisse Op Cit 2015 p 14).

The gradient presented in these aspects allowed a reinvention of the practice of life that aligned the isolated characters of everyday life from the phenomenon of information, and allowed a broader view of what would be the most contemporary events for man and his socio-spatial relationship.

It is still possible to infer that in an a priori evaluation there is a symmetrical validation within this endogenous character of the processed information, which innovated and brought an advanced perspective to relations, whether structural, or punctual or in society itself, or even in its conjuncture, which raised knowledge about the imbroglios within their most commonplace, where it was allowed to present facilitations in the interrelationships of the existential daily life of each individual reciprocally. Finally, we brought a very up-to-date saying about the aspect of innovation that must be absorbed in its tight form for a better understanding of the information phenomenon. Let's see: "According to Amorim, 2022 in verbis: *"to innovate creativity is mandatory, High technology is optional"*", he emphasized.

#### 2.2.4. Information Systems

The previous description allows us to start that the information accessed must have secularity and credible criteria for the usefulness of the information. In this wake, the informational object starts to be operationalized from systems that instrumentalize such assertion. In the words of (SANTOS, 2020) "Information systems can be understood as information traffic, processing and transfer management to end users", this definition is better detailed in the concept of (LEMONS, Dalton Luiz, 2011 p 28.[14]

An information system is a specialized type of system and can be defined as a set of interrelated components working together to collect, retrieve, process, store and distribute information in order to facilitate planning, control and coordination., analysis and the decision-making process in companies and organizations.

Information Systems contain information about people, places and things of interest in the environment, around and within the organization itself.

(LEMONS, Dalton Luiz. Information Technology: Higher Course in Technology in Public Management. 2nd edition. ed. IF-SC. Florianópolis, 2011 p 28). [15]

In this view, it is possible to foresee the infrastructural character that is the information system, because on the one hand it allows it to be a keeper and gauge of collected data, on the other hand it presents the paradox of disseminator and

challenger when in its endoprocessual environment this is oriented towards the export of data. At this point, it is possible to verify not only the peculiar properties of an information system but also its inadequacies, whether they are endogenous (internally reprocessed) or exogenous (internally imported); At this point it is necessary to point out two key points; I- Information Management, and II- Strategic Information Management; since it is observed that the degree of treatment on the allocation of data collected, processed, and made available to a specific public, is essentially dehydrated from its original genesis, which is, in short, compilation of data for simply storing information, of internal relevance to the management. Let's address the tone of these biases referenced by the author (LEMOS, 2011 p 39-43)

(...) Management is the “act of managing, management, Administration” (FERREIRA, 2004). We are led to the term administration, which is conceptualized as the set of activities aimed at the direction of an organization, using management techniques to achieve its objectives effectively, with social and environmental responsibility.

(...) The word Strategy comes from the ancient Greek 'Stregos' (from Stratos army) and “Ago” leadership or command, having initially meant “the art of the General” and designated the military commander at the time of the Athenian democracy. There are several variations of the word such as Stratécós, or the chief general's own, Stratagema or Estratagema, ruse of war; Styrtia; or military expedition; Strautema, or army in campaign; Strategion, or General's tent, among others (...)

(...) After what we saw about the terms management and strategy, it is possible to conclude that the understanding of strategic management leads us to a broader view of the terms.

(LEMOS II, Dalton Luiz. *Op Cit et al* 2011 p 39-43)

The author's macro vision above illustrates well the designation that is the "strategic management" of information, this leads us to the perception that the data once released at the mercy of managerial improprieties, now becomes tamed by the systematic management that has the power- duty to strategically direct and effect them. A point of extreme relevance in this process is that of “data protection”, since the treatment, the feedback of an information platform must not be the object of 'improper externalities', such as data leakage, criminal disclosure, among many other harmful effects. that the operability of an information system must strategically monitor, evaluate and execute in a satisfactory way the ideal treatment of systematized and codified information in instrumental and managerial data. At this point nowadays the <sup>3</sup>LPGD called Data Protection Law, which provides the following environment for compliance or integrity to data processing. in this sense, we have the affirmative illustration presented to us by the institution Fia Business School, 2019 as a reference to the new legislation on the subject, on the private content of data and its adequate treatment by Law 13.709 of August 14, 2018 in verbis:

(...) LGPD is the General Data Protection Law, a law

passed in August 2018 in Brazil that imposed rules on the processing of personal data and whose purpose is to protect the right to freedom, privacy and free development of citizens. The law does not concern only information kept in online systems, but its creation was motivated by the complexity that the data management theme has gained in the digital economy. After all, we are in the Information Age, a period marked by hyperconn. Available at: <https://fia.com.br/blog/lgpd/>. Accessed on: November 08, 2022 html. [16]

This entire legal portfolio produced “in the new legislation had the ability to segment in the public and private space the traffic of information processed via data collection, maintenance, transaction, compilation and transfer” (Santos, 2022) in management means that prioritize information in its database aiming at the strategy of its institutional purpose. On the other hand, it is no longer possible in the New Economy, that is, in the current Economy 4.0, not to use information systems technology. In this thinking mat allows us to align with (WAKULICZ, 2016 p 15) in its assertiveness, thematizing. [17]

“Knowing Information Technology and Information System, becomes vital when we want to advance in the success of companies and organizations, and for that reason, they constitute a fundamental field of study in administration and management of data, the types of companies, including the ones of the cooperatives.

(WAKULICZ, Gilmar Jorge. Management Information Systems. ed. Etec-UFSM. Santa Maria/RS, 2016 p 15).

The brief report above on knowledge of technologies involving information, it seems to us that in Economy 4.0 it is not possible to live without its effective performance, which in summary alludes to the following finding. (WAKULICZ, 2016) “*It is a central portfolio that, based on interactions between Institutions, Governments and the Third Sector, redefines the maxime role through which all the compilation of current business is linked, transforming potential elements and economic agents into segmented structures in the economy*”. Therefore, ultimately, the sieve through which Economy 4.0 travels, passes primarily through the information systems that, backed by their respective databases, effect the dynamo and randomization of these sectoral portfolios for the new economy. Finally, we are talking about information systems that generate themselves: Inputs, Processing, Outputs where data, networks and people are interconnected and expand their vision in the business world, always using their access to “digital data” effectively, which will be the subject of our next topic for more assertion of content and interaction.

#### 2.2.5. Access to Digital Data

As stated in the previous context, the need for information systems is pressing, however this will only be effective as access to digital data to achieve all the praxiology that involves our Economy 4.0, if we place it within the basic assumptions of Access to digital data in the affirmative. It is important to deduce a little more about this principle, so that

we can move on to the next context, the treatment of digital data, which will be the central object of the next topic 2.7 of this work, for now we will work on this conception within a priority logic of data access fingerprints. It is important to demonstrate a degree of preliminary precepts on access to digital data, so that we can finally define it within the a priori and fundamental context of today's Digital Law. In the words of (PINTO; ANDRADE, 2021 p 19)

Society has undergone unimaginable technological evolutions in recent times, and it is certain that many of these advances have challenged, and still challenge, both the creation of new legislation and the reflection of such changes in judicial processes and decisions, before the innovations that they mean (...)

Digital media are a reality and there is no doubt that their use has become essential, not only for accessing information, but also for accessing other services.

The pandemic brought by the coronavirus widened this scenario even more with regard to the use of new technologies and the internet: people started to hold virtual meetings, classes became online, purchases are made over the internet every day., even medical consultations began to be carried out remotely.

(PINTO; ANDRADE. Booklet on Digital Law *O p Cit Ibidem et al* 2021 p 19). [18]

Access has given new meaning in this present environment of digital data, an avalanche of immensity of rules and compliance requests, in various segments of society such as the technology sector itself, the Business, or Governmental, the ideological and related areas, began to constantly demand access to information from digital data, which as a rule in the not so distant past were only demanded by news agencies that portrayed through the constitutional right to information in the search for secure access. to their primary sources; in this respect priority data access has been considerably reformulated. Note that attentive to this new portfolio of Digital Law that is made up of information systems, we currently have a myriad of infinite possibilities and situations that use access to digital data as a work expedient and even entertainment, at another end of this segmentation is the massive access to data connected to demands for health, governance, industrialization, entrepreneurship and other institutions such as government agencies to improve access to service delivery to society and citizenship. Access to digital data is crucial in our current socioeconomic base, as the impeding barriers of the physical spectrum to economic transactions are no longer obstacles to the distant and untimely accesses of yesteryear, it is perceived in the meantime that there is every day an infinitesimal cadence that uses access to digital data beyond known reference-space surroundings.

It is opportune to point out that access to digital data quickly transformed our way of appropriating information, as before it was necessary huge devices to condense a minimal base of pro-knowledge data and to have access to them; In today's access to data compilation, processes have expanded in such a way that information and secure access to the same

are distended every day in environments and access platforms with a low degree of insurability, therefore being within this possible logic of low security to data, examine whether access should be more reserved for confidentiality or publicity, as information can become privileged by demanding primary procedures for a minimum access security route. In this vein, an "eternal return" to access to reserved, treated, codified and measured data is increasingly observed. In this sense, we just need to look at the means of private and public e-cloud data cloud platforms keyed by internal and external encodings, aiming to securely transport access to data within a reengineering of authenticity, reliability, tractability and confidentiality of access to the information required.

From this point on, we will guide another specific bias of accessibility to digital data within its connection with reality that can be diagnosed from two certainly distinct biases for our current society, it is just about: digital inclusion and digital exclusion.

In this portfolio of attention to access to data, a paradox emerges, namely the right to access and the opposition of anonymity. let's see in general lines central points that enrich this thought, in the words of (NEIVA; BAIRRAL, 2021 p 26).

From the appearance of the first computers to cell phones with Internet access, the arduous path of digital inclusion has been consolidating in a broad way, but it has brought up a widely discussed issue, anonymity.

Incidentally, how to be anonymous with networks and more security networks that work without the user even being aware that, with each site opened, browsers already capture the location of those who use them for search information?

This type of information has already contributed in many cases to recovering cell phones, tablets, notebooks or other belongings (...)

Cartilha do Direito Digital, 2021 et al Op Cit Ibidem (NEIVA; BAIRRAL, 2021 p 26) [19]

Information in data provided a sphere of inclusion and exclusion digitally, but brought the user a limit hitherto little faced on a daily basis, the levels of: security, traceability, confidentiality, treatability of data between anonymous and publicizable, timely and truthful information.

Taken as the center of a major discussion today, Fake News has produced a "Brainstorming" of multiple ideas, when we speak in embryonic terms about the central aspects of digital data that circulate in vehicles and digital networks as news facts of apparent established truths, but which are proves over time "fallacies" or links devoid of information assertiveness. In this plot words such as: security, surveillance, inappropriate content, anonymity, Deep Web, Dark Web, Cyberspace, Space Web virtual and transnational crimes, among other little-known nomenclatures of the general public place digital law in a random segment, where the objective, that is to have access to compiled data, and the ultimate purpose, which is to have access to information through data transaction, has become an imbroglio and a great paradox to be harmonized with the law.

Access to digital data in this line of reasoning has presented positive and negative biases in our days, the most news examples are: the international police dismantle groups linked to transnational crimes and information security, among others such as: Was there theft of sensitive data? On which platform was this action broadcast? And yet such a platform has increased the level of data security? among others. In this line of assertion, it is already possible to use technology itself in a positive way in the fight against disinformation, safe use in data traffic through technologies such as: Blockchain, public and private e-clouds, among other data surveillance devices, which if accessed takes us to safer environments, however it increases the so-called paradox of communication in its universal sense, which is, in short, communicability in open gradients accessible and refractory to users as final recipients of information. At this point the field of action is open to further preliminary discussion:

What is the best way and model for us to adequately treat the digital data accessed?

In the next topic, we will present the crucial points of this endeavor on the treatment of digital data in the current randomized digital right segment.

#### 2.2.6. Digital Data Processing

(...) "In times of freedom, treatability is always required" Anonymous authorship. This constantly echoed phrase brings us to the treatment of digital data, which many analysts see as essential for the very survival of this ecosystem. Transmitting data has never been a subject apart from innovation and technology, the ICTs already refer us to this. For it is observed that even in the beginnings of the communicating civilization, the missive data from one to another form, requiring adjustments of linguistic signs and adequate treatment to socialization. At this point observes us (SILVA; ZIVIANI; GHEZZI, 2019 p 8-9) in verbis. [20]

Contemporary societies have changed rapidly and studies about them develop a rich and complex vocabulary to express such information. Post-industrial society, programmed society, knowledge society, consumer society and globalization are some of the terms around which gravitate, descriptions, explanations and typifications of structures and new systems of action. In general, the reflections point to the fluidity of social classes, the new roles of political institutions of control and social discipline, the interdependencies between production and consumption segmentation, the functions of symbolic productions and the role of creativity and ICTs.

From an analytical point of view, ICTs can also be seen in different ways. can be treated as triggering effects and recompositions in the ways of producing goods, organizing and storing content, accessing and disseminating information, communicating, socializing and reorganizing modes of socialization and work.

(Org. IPEA. *et al. Ibidem* SILVA, Frederico A. Barbosa da; ZIVIANI, Paula; GHEZZI, Daniela Ribas. IPEA- Text for discussion: Digital technologies and their uses. IPEA. Rio

de Janeiro, 2019 p 8-9) [21]

Let us observe from the macro vision of the authors above, that the bias of the treatability of digital data by ICTs is embodied in the context of modern societies and makes clear the breadth and transformation generated primarily by the socioeconomic reality when advancing in theoretical studies on the structuring through which the data travels, they observed a direct connection between these three social and economic elements: Product, creation and control. By listing these three strands on data when versed on coded platforms, the bias of its "product aspect" is the implosion that it translates into segments of the current knowledge society, this becomes clear when we import data and export data from our platforms. The gradient of this product is exponential, as it is no longer merely compiled data suitable for an institution, starting to have a random effect in today's computerized society, that is, beyond the minimum common spectrum of internal information. Another aspect is given to us by the "aspect of creation", we see this clearly from the isolated data, that is to say loose information without any treatability is merely irrelevant data (SILVA, 2000), but when we prioritize its content from the creation connected with other areas of knowledge, it is possible to obtain a positive outline of its magnitude, that is, when we recreate irrelevant data by connecting it to a sphere of knowledge, what is instrumentalized from then on is relevant information, which per hour within a minimum degree of workability it can be densified into complex informational data that we previously did not observe. Didactic example illustrated by (Sala do Empreendedor- SEBRAE, 2020 in verbis; (...)

"A philanthropic institution, observing a riverside population, proposed to carry out research on social entrepreneurship to improve the conditions of that population (...)" continues the speaker, (...) When dealing with the socio-environmental conditions of that population, region identified through its research that that population was rich in organic compost, noting that the production/maintenance of organic waste was worked in a disorganized and rudimentary way. In the meantime, when observing the potential for production of organic fertilizer in that region, it made partnerships with farmers from another region that had soil infertility problems, and that, according to the current rules, its local production was more expensive because the management was perfected by inorganic production. purchased on a large scale. What happened with this fact?. It is observed that the mere information created provided a compilation of data, which, when treated correctly, generated for that riverside population the connection between the profitability of their in natura product that was wasted by them. There were mutual and exponential gains. The entrepreneurship that was born from the environmental point of view only under the auspices of being socially appropriate for the population, was equipped by economic entrepreneurship for the region. Opportunized by the creation aspect.

The last aspect to be portrayed is the aspect of control, as emphasized by the authors, for example: data after gaining adequate tractability and becoming necessary for a certain

contingent, starts to be connected with minimum controls of accessibility to data by direct and indirect operators permanently. It is what we call the information control process, which is closely linked to the reorganization that it inserted in a given society, which is no longer empty and even gained contours that were not previously conceived. By aligning the study-lecture of the institution under discussion, other entities saw the indispensability of information and began to periodically collect this data via systematic import and export of data. The scenario has changed. Through this new perspective, it was also necessary for the state to intervene on who could have access to the database, that is, the information made available on the platform of the philanthropic institution, as it was later identified that nearby landowners were buying land, due to the richness of the region in producing of a certain organic fertilizer, and in the event of failure to purchase, they adopted land grabbing tactics, subverting the properties and dividing them up indiscriminately without due care for environmental preservation, focusing solely on the financial result to be apportioned. This clear observation of the lecture and the positive and negative points of digital data in "wrong hands", or "inappropriate platforms" makes us rethink the commitment that digital data, in addition to being made available, must have the appropriate treatability so as not to have the undesired effect of information. Therefore, it is imperative that data processing has an adequate purpose under the aegis of controls (aspect of controls) that can go from the minimum necessary to the maximum mandatory due to the gradient to be instrumentalized in the consolidated information consumer society.

### **2.2.7. Purpose of Digital Data Processing**

As seen in the previous topic where we demonstrated how the logistics of the compiled data should be treated, that is, to the point of positively achieving a purpose or increment in the reality of a given population, so that the harmful effects do not gain unwanted contours that can subvert its original idea; Furthermore, to improve society's access to the goods and services available within the sphere of content and informational context available to them in their realities. In this context, it can be said that the purpose of processing data appropriate to realism gains so much importance due to its gradient of institutional workability. An important detail when we are talking about data processing, we are for now referring to its intrinsic content: (properties of the processed information), and not its intrinsic content, for example to: (CPU hardware that integrates the computational means). In this sense, a point of reference is given to us, by factors on the data that involve its traceability in three key and strategic points (Cartilha Digital, 2021 p 35)

When we talk about data protection, we cannot forget the importance of acting on three strategic pillars: the technology itself, that is, the technological resources that will guarantee the security of information; the legal aspect encompassing questions about how this data will be used and who will use this data; And finally, the operation, ie

all business structuring processes.

(VELASCO, F. C; MEIRELLES, Mona Freitas O. Cartilha Digital Op Cit et al ibidem) [22]

Here we have a set of ordered triads, through which the path from finality to the final user, spreads in itself all the perfectibility of access in its finalistic stage. It is important in a corporate organization, whether in the public or private sphere or in the third economic sector, that the assessment of the context of technology requires professionalization, as it connects the organization to the external space, that is, it defines its mirroring to the business world, this professional therefore, it must have a degree of qualification and immersion in each technological innovation inserted in the market with added value. It is not enough to know how to operate the system, what is observed in this gradient is the aspect of knowledge about the innovative techniques of the technological system. Another point that we will focus on is the legal issue, here we have one more dynamic point regarding the finality of the data, since the legal criteria place us between the randomization of the digital right and its expansion, and in this desideratum it is important to infer the maxims between the objective of self-regulation between data processing and its ability to offer security at the end user level of the processed information at levels of security and support. For issues such as decodability is a space of great scope, which in summary we call expansion, in analysis we categorize as expansion projecting to the core centrality of digital law today.

This randomizing space of information in its dynamic effect is not concentric, it does not necessarily have an intensity relationship with other interfaces of the system, it also only reproduces an aphoristic content that must be worked uniformly in the pursuit of its final desideratum, which is the legal security of the data. The third point is in the operability of the system, because here rests the instrumentality, as the professional circles between the challenge of protection and privacy, having to visualize the operability of the system and also connects the protection elements and the links to the privacy of the aggregated data to the Cybersecurity criteria, and in this respect it becomes recognized as a DPO.-(Data Protection Office) We visualize a little more about it in the perception of the highlighted authors. In the view of (VELASCO; MEIRELLES, 2021 p 34-35)

The Data Protection Office, or DPO; is one of the main figures of the Brazilian personal data protection system. also called "person in charge of processing personal data", the DPO is defined by the General Data Protection Law itself, in its article 5, VIII, as the person indicated by the controller and operator to act as a communication channel between the controller, the two data holders and the National Data Protection Authority" (...)

Therefore, see if the role of the DPO is nothing more than ensuring that data from customers and/or employees of a company is collected, stored and used in an ethical, legitimate manner, that is, collected with the user's consent,

in a transparent manner, unambiguous and secure. Adopting technical, operational and legal measures within companies so that they act in accordance with the law since he is the link that connects the holder of the personal data to the company itself and the ANPD National Authority).

(VELASCO; MEIRELLES: Digital Booklet *Op Cit et al* 2021 p 34-35) [23]

Here, the randomized gradient takes on a tangible aspect, as we see that this DPO professional is the main cut between the organizational structure, the intricacies of the platforms involved and the agent that will carry out the data processing in an adequate and unequivocal way, in its intrinsic and extrinsic aspects to the vehicles external data into your command center data. As we speak of coded elements and their proceduralality as an object of information traffic, it is important to list that institutions can also suffer reverse effects, when digital platforms are allocated to themselves as apparently safe data and potentially vulnerable to large-scale cyber attacks.

This occurs a lot with public and private corporate environments. The DPO professional who has the profile of an information security analyst must dedicate his work to the benefit of the corporate segment in which he operates, given that virtual environments can be victims of attacks and unwanted hacking, jeopardizing the institution's performance and security of users' data, with all the harmful improprieties in a criminal way and the effects of this in the reality of the users. Let's see a summary of our daily life in the words of (OLIVERA, 2020 p 8):

(...) Cybernetic crime is every crime that is carried out online and includes the theft of information in the virtual environment, but also acts of instigation outside the internet environment.(...)

(...) The point is exactly to understand that cybercrime can and very often does remain partially off the internet (...)

(...) And what are the most common crimes committed?

Due to the volume of occurrences and property repercussions, the most common crimes are property crimes in a broad sense (including embezzlement and theft), system intrusions, insertion of false data, the crime of threat (broad sense including extortion), crimes against honor, including so-called hate crimes, crimes of money laundering, having as antecedent crimes both crimes committed over the internet and other crimes committed outside the virtual environment, but which for the concealment and dissimulation of the assets of these crimes (...)

(Org. Gran Curso On-line. Oliveira, Marcelo Ribeiro de. Criminal prosecution and New Technologies: Cybercrimes and Cybersecurity. DeepWeb and DarkWeb. Digital evidence. ed. Grancursos. Brasilia 2020 p 8-10. [24])

The point of view portrayed by the author demonstrates that despite all the internal efforts that institutions have to offer users, contrary biases between data processing and its final objectives can suffer external interference within the internet environment and outside it, which is a sore point on

information security, and the so-called cybersecurity spaces, in view of the criminal and extra-criminal guarantees linked to the State, which, among other possibilities, do not reach the opportunity to protect and serve its jurisdiction in this aspect in an integrated and satisfactory manner. a new look is on the ANPD that can be the positive state embryo in this institutional fight, in the defense of the jurisdictional of the information and its relation with the protection of the data. In this next topic, we will deal with the points and make a timely recognition of virtual crimes and their ramifications through various links in today's digital society.

### 2.2.8. Legislation Applied to Data Protection

As we saw in the previous topic about the possible elements that make up the digital society, and the legal institutes through which the processing of traffic data can be randomized. It is important to highlight that the national system has innovated in its legal system by dealing with the subject in a specific and timely manner, first in embryonic forms translated in Law 13.709/2018 called the General Law for the Protection of Personal Data, which had a structural reformulation to starting from Law 12.965/2014 known as Marco Civil da Internet, which instinctively started the regulation in this segment and inaugurated the space in the State to legislate on topics relevant to the matter in a more specific and coordinated way, meeting the dictates of an attuned digital society.

The intention of the new law is precisely to provide protection of the data of individuals with the penalty of fines to motivate compliance by organizations. Businesses will be at the mercy of being held legally accountable by citizens and other businesses. And it will be up to organizations to generate proof of proper use of personal data. Users who suffer data leaks may be compensated and companies that do not know how to deal with cybersecurity, and have problems related to this, will be subject to fines equivalent to up to 2% of their revenues, with a limit of R\$50 million. In addition to fines, companies are subject to warnings, blockages, suspensions, partial or total bans on carrying out their activities and disclosure and public exposure of the penalty. What's more, compliance with and concern for the LGPD is not just limited to your company, but to your entire supply chain. (Org. (Martinelli. *Op cit et al*, 2021 p 14-35). [25])

The legislative sphere flooded the content that entails encompassing the entire normative structure with regard to the subject, but left gaps that must be filled by the performance of the current legal system, however a more attentive look can throw "lights and spotlights" on the scenario to be paved in this constructiveness of legal arrangements adequate to the effective application in this self-regulation. On this bridge we have the presentation of the LAI - Law on Access to Information, which provides opportunities for gains in accessing information, that is, the time needed within a timeliness gradient that provides the user of information in their regular enjoyment of this infraconstitutional right. In this perspective, it is unopposed

to present its preliminary concept for greater identification in view of the self-regulated theme according to (Gov. Br, 2020); It is important to observe the attitude of the public authorities on the issue. in the words of (Martinelli, 2021 p 14-35) this context is manifested as follows

Law 12527, enacted on November 18, 2011, regulates citizens' constitutional right of access to public information and is applicable to the three powers of the Union, the states and the Federal District and Municipalities. This law represented an important step towards the consolidation of the Brazilian democratic regime and the strengthening of public transparency policies. [26]

The Law establishes as a fundamental principle that access to public information is the rule, and secrecy only the exception. To guarantee the full exercise of the right of access provided for in the Federal Constitution, the Law defines the mechanisms, deadlines and procedures for the delivery of information requested by the public administration to the public. the Law also stipulates that public bodies and entities must proactively disclose a minimum range of information via the internet. Available et; <https://www.gov.br/capes/pt-br/Acesso-a-informacao/servicodeinformao-ao-cidadao/sobre-a-lei-de-acesso-a-informacao> Accessed on: January 9, 2023. html.

This spectrum of law allows for consistency within the country's legislation in the basic content through which the law on access to information will travel, as it allows for the access to citizen access to information that is unavailable or that is in the possession of public entities and that needs to be an accessibility channel to meet requests and demands, and for technical coherence to protect with otherness the relevant information that citizens are predisposed to have utility-needs in their day to day linked to the full exercise of their citizenship. At this point, as we are portraying the legislation applied to the subject of data protection, it is important to disseminate the content on access and protection of the personal data of citizens, so that there are no doubts about the "cases" that involve one and another regulation in this endeavor. legiferant. According to (Iderlândio Teixeira, 2012) this approach is realized in the following structuring colt is observed that there is no superiority of one law over the other, but particularities in both: one in guaranteeing access to information, as a rule; and the other in ensuring the privacy of personal data. It is well known that both seek to protect personal information from unauthorized third parties, but only the LGPD is concerned with having a documented privacy impact analysis, documented privacy and protection policy, incident response policies.

In this way, it is noted that the laws, despite their peculiarities, contribute more to the protection of common and special personal data than they repel each other. Available at:

<https://www.serpro.gov.br/lgpd/noticias/2020/lei-acesso-informacao-lai-lei-geral-proteção-dados-pessoais-lgpd>. Accessed on: January 9, 2023. html. [27]

The common points and somewhere between both

normative spheres, whether of the LGPD or the LAI, lead us to the understanding that both seek to give integrity to the data on the tripod forms: confidentiality, integrity and availability within the logical normative premises aligned with the principle of prevention and security (TEIXERA, 2020). The exponentiality of the applied legislation is externalized to other areas of everyday life, in different areas and in fields beyond the Brazilian State, and it is important to bear in mind that the hordes of this perception are on the agenda in the world in order to preserve values of citizenship global. Let's see; (...) In an approach on the right to be forgotten, privacy and information portrayed by Machado presents the cases of this integration and connection in the national and international reality (MACHADO, 2020 p. s/n)

(...) This is a fundamental concept arising from the principle of human dignity and the peaceful understanding that everyone has the right to survive the stigma, the embarrassment, but above all, the embarrassment of having their person and their values perpetually associated with a given condition or a given fact. [28]

As a human and fundamental right, it limits, complements and conflicts with the right to information and freedom of expression, both rights of the same category and constitutional status.

(...) The discussion around the protection of the "right to be left alone" now emerges, in the digital age, from two specific cases linked to social media: two European citizens who use services from the "web 2.0 line" (Google and Facebook) raised, before the constituted powers of that continent, the discussion around their rights as a human person.

Available et: <https://www.serpro.gov.br/lgpd/noticias/2020/direito-esquecimento-privacidade-lgpd> Accessed on: January 9, 2023. html.

The legislation applicable to the subject finds shelter in other intercontinental environments, when observing the above excerpt, it is verified the need to carry out the treatment due to the adequacy of the information, giving it accessibility, confidentiality, treatability, and non-perpetuity character, when found and faced with the dictates of a society that values information as a collective right to retain information, but also has a fundamental individual value as a public right in the sphere of fundamental rights, the unshakable foundation of human dignity, which by embodying a given factual element or punctual that does not come to stigmatize e the character of perpetuity in the confrontational face of society's right to keep itself informed.

### 2.2.9. The Legal Institutes

Digital law, as well as the various branches of the legal order, are nowadays linked to the content that, throughout the human trajectory, densifies legal knowledge in society through the elements of relevance that have been consolidated as legal institutes. The legal institutes, when portrayed within a contingent of the legal system, are directly linked to the sanctioning normative production and with an

integral gradient in the sphere of its feasibility in the society that absorbs it as a valuation and within the procedural precedent of the *ratio decidendi*. Let us observe ourselves, because according to (Vade-Mecum brasil, 2019) Legal institute can be defined as: "A set of regulatory or disciplinary norms of a certain legal creation, with its own characteristics, constituting an autonomous entity of law that serves a private or public interest. public: bankruptcy, servitude, etc., In this area of findings of a normative set of disciplinary rules that meets a certain construction or legal framework, the need for a regulatory institution for digital law that supports in the sense of providing its meaning in national and international legal systems is authentic. However, for a more elementary understanding of this new law, it is necessary to conceptualize its institutional bases for a better digression of knowledge shaped by the current legal form.

In this line of reasoning, the explanation presented to us by (Cartilha Digital, 2021 p 12) is categorical, in the form of illustrative and explanatory questions:

"(...) Is digital law an international law?"

Yes. The globalization of societies, the sharing of technologies both by countries, as well as by people and companies, the collection and exchange of information that occur at all times, with effect in all corners of the planet, and also demand a globalization of legal thought, so that it is possible to define minimum criteria to be observed by different countries and people. Thus, more and more International Conventions and Treaties are emerging in this regard. [29]

(...)

"In digital law, where are the greatest number of rules found?"

There are several Treaties, Conventions, legislation and Normative Instructions involving digital law, the disclaimers published by providers continue to be the rules that most often apply to participants in digital relationships. digital law, due to its global and constantly evolving nature, tends towards self-regulation, which obviously must comply with the provisions of different legal systems. (our emphasis)

(Org. Cartilha Digital-OAB-Niterói *OP Cit et al ibidem* 2021 p 11-12).

The digital right is therefore consistent with the dynamism exercised by its endo organic content that spread throughout the in locus of its action, which can be in various physical scopes: (international, national and local) and in various virtual scopes (planetary and interplanetary ), we can say here that within the sphere governed by International Space Law, there is a certain caption and guaranteed space when we treat the main spheres of this right in connection with the elementary bases of digital law. It is important to place in the "orbit of today" the great use of digital elements in majestic interplanetary journeys, where space probes equipped with artificial intelligence allow a great exploratory means through a vast compilation of data, whether in the low or high planetary stratosphere.

In this path, the legal institutes must be perfected to the point of expressing within their constitutional categories the correspondence between Constitutionalized Law and the parameters that involve the digital Law itself, which are interconnected and allow each day an innovation in its nuances already secularized by the internal legal systems of countries and the international community with values linked to fundamental rights that are currently neglected internally. In this area, it is important to highlight the importance of this element as a defining element in our CRFB/1988 when applicable to Brazilian internality. According to (Cartilha digital, 2021 p 26) it appears that the right to privacy within the constitutional prism from the Federal Constitution is redefined as follows:

"It is understood that any act, whether of a digital nature or not, must follow the current constitutional principles. one of the principles exalted in the Federal Constitution in force is expressed in its article 5, XII, which advocates the inviolability of correspondence or data" (Cartilha Digital, 2021 Op Cit p 26).

The form of constitutional provision on the elements of guarantees to individual freedom is central, which ultimately supports the value of the humanitarian character on the forms and methods that must be alluded to so that the individual within the sphere of private freedom does not suffer embarrassment or misrepresentation of its personality in the moral order that integrates the society in which it is a part, will not have a harmful and distracting glimpse as a utility-necessity of digital media, which will be executed by its legal personality in fact in the private and public space perennially. In this way, it is necessary to safeguard that the internal legal institutes guarantee the privacy of the personality in the face of the data used by him or in the process of being used. like any segment of the legal order, digital law also brings with it new categories that are particularities of its orbit, that is, there can and should be new institutes that permeate this juridical entity in the relations of effective citizenship, however the defining elements or even redefiners must be guided by the principle of the dignity of the human person, a central and nuclear element of our Federal Constitution.

This constitutionalizing matrix has the ability to privilege citizenship when faced with elements of public order or even in the face of state powers, in transindividual relations in their horizontal and vertical biases in interinstitutional relations between fellow citizens within their citizenship needs. It is important to have these elements redefined in the individual and collective sphere within their most peculiar dealings in order to be the same co-honored by the State in the face of the digital right and the citizens. however, this path is still unknown, that is, this terrain needs to be filled institutionally, as it is about gradients that involve the physical and virtual environment and that must necessarily pass through new legal institutes that guarantee the effectiveness and the constitutional mandate and citizenship effective digital.

### 2.2.10. Digital Law Labor Market and Its Structure

Digital law, as portrayed in the previous topic, presents its institutes in order to meet certain demands in society, as a rule, this demand is executed by the digital labor market and the cases related to its structuring. At this point, it is necessary to update this perception of the labor market aspect linked to the field of digital law due to various biases, one of which is the emphasis on innovation and technology, which resize this labor field and deserves a space for discussion, having seen its performance many times over. times until mistakenly mistaken for the digital right itself. at this stage, it is important to highlight that the structural market for innovation and technology is so expansive that it absorbs the elements of digital law and maintains a relevant connection to it, but without having the character of an institute-concept and terminology, but this logic is linked to its eminently market character in its breadth.

The digital labor market therefore presents peculiarities, but in order to extract the best terminological content for terminological purposes, we will present the concept of market in the technical sense perpetrated by (LAMB; HAIR and McDaniel 92004) in verbis: “(...) De Simply and directly, Lamb, Hair and McDaniel define a market in our common context, referring to people or organizations with needs or wants and the ability and willingness to buy, highlighting what and how they will offer together to satisfy those needs. This primary notion of market takes us objectively to the central components of this relationship, which are, in summary: the action of economic agents, who in the form of marketing question themselves;

What to produce? How to produce? and for whom to produce? (DUTRA, 2010).

The central figure in the market responds to these main questions.

However, in the specific field of the digital law labor market, this conception gains other externalizing contours such as: in which environment to produce content or application instruments (applications)?, for whom to produce, for men, or machines? And how to produce digitally, in virtual or physical environments in digital or real randomized spaces?. In this secularity of acts and facts, a vertex is born as an elementary figure on the market, the planning, where the organization, direction and control, minimize the uncertainties of the marketing field (UNIASSELVI, 2015). In this connection aspect we compiled the word planning, which inserts us in the context to be studied. Let's see this correlation evidenced by (ESTRATEGIA, 2016 Apud OLIVEIRA, 2007): "According to the well-known author, Djalma Oliveira, planning is a process developed to achieve a desired future situation, in a more efficient, effective and effective with the best concentration of efforts and resources by the company”.

Effusively, the connection between market and planning gives digital law a commonplace to its original staff, for that it is enough to start from the defining elements of the digital market, so that this assertion connects with the market reality. In this regard, virtual communities have come to play a

priority role in digital labor market relations, for which it is enough to pay attention to the massification of contents and the recurrent data traffic from (inputs) to users and (outputs) where timely information and instantaneous allows to know or to be aware almost in real time, of the arrangement of things, places, people and objects. Virtual communities that consume content in the digital labor market present themselves as follows in contemporary times. Let us see this resignification in the words of (MUSSOI; FLORES; BEHAR, 2007):

“Virtual communities are virtual networks of interactive communication organized between shared interests. If we analyze the past at the origin of the first civilizations, the human being was nomadic, lived by hunting and fishing and gathering products from nature. Over the years, human beings learned to organize themselves into groups, thus giving birth to the first communities, which gave rise to civilizations. These human groups defined ways of expressing moral and cultural value according to each era. With the new technologies, groups of subjects linked by non-formalized ties, with common characteristics, were formed, forming virtual communities. (MUSSOI; FLORES; BEHAR, 2007)

Org. BARBOSA, Ana Clarisse Alencar. Special Topics et al va ed. UNIASSELVI. Indaial, 2015 p 122) (emphasis added) [30]

The clear clarity with which virtual groups impose on us due to their gradient of interactivity and connection, presents in itself a potential collective intelligence that, within the core aspects of this perspective, operates new inventions and new learnings in the labor market. “This myriad of events concatenated through virtualization or deterritorialization recreate collective intelligence on a macroscale in cyberspace.” (BARBOSA, 2015 p 122 et al (MUSSOI, FLORES, BEHAR, 2007). Nowadays, all this increase can be translated into a cyberculture where the supporters of this form of grouping recreate at all times a consumer product for the cyberspace market.

With the optimization of high-tech instruments, we experience a unique digital work context, as the virtual transformation gave way to digital transformation. And within this panorama of disclosures, where, for example, public and private institutions, and others even from the third sector, self-correlate and operationalize what we call the information society. Let's see that in the sphere of digital work, knowledge and technology are interconnected and the direct application of this massification introduces new sources of production, communication, management and innovation. In this sense (BARBOSA, 2015 p 116-117 et al (CASTELLS, 2021 p 88) we refer to this theme in the following perspective.

“(…) Without a doubt, information and knowledge have always been crucial elements in the growth of the economy, and technological evolution has largely determined society's productive capacity and standards of living, as well as social forms of economic organization (…)

The emergence of a new technological paradigm organized around new, more flexible and powerful information technologies makes it possible for information itself to become a product of the production process. To be more precise: the products of the new information technology industries are disruptive in information processing. The new information technologies act on all domains of human activity and make possible the establishment of infinite connections in different domains, thus between the elements and agents of such activities. (our emphasis).

Org. BARBOSA, Ana Clarisse. (2015 p 116-117) Apud et al (CASTELLS, 2011 p 88). ed. UNIASSELVI, Indaial 2015 p 116-117) [31]

Please note that at this point we do not deal with the instrumental and technical functionalities of the market, such as the innovative technologies of the global digital market: Blockchain, Internet of Things, fintechs, artificial intelligence, immersive metaverse environments, cryptography, 5G, Big Data, among others.

We only seek to list the nuclear and close elements that structure such a market, we do not align here the quantum experimentation of this product and the potential results in the areas of health, education, terrestrial and space infrastructure, which the digital age by reflex connects to reality, and that from the added value of technology, knowledge, innovation and science, as co-authors and co-sisters, these conjunctive segments bring each day a structuring reform in the digital labor market and in its economic agents of interconnection; where the context of applicability remains in new assertions and marketing reverberations. An expansion of systemic scope is necessary for us to understand the current dynamism of this market in the structure of today's information society.

### 2.2.11. Institutionalized Instruments of the Digital Digital Market

From an expanded macro vision in the previous topic on this structuring of added value of the digital market and based on the systemic construction of innovation, technology and virtual knowledge and other disputes, it is possible to refer to its operational-functional sphere, through its institutionalized instruments that allow digital law to innovate within its sphere of action, and translates the events desired by its consumer agents and producers. In this sense, it is important to highlight at least seven prepositions, without exhausting the subject, just bringing them together, about their relationship between markets and institutions under a broad scope and technological change and the use of their current and evaluative instruments. In this line of training, it is opportune to reference the ideal of (POSSAS, 2011 p 235-235) in verbis:

"1. Technical progress develops along technological trajectories, interrupted by the emergence of new technological paradigms (...);

2. There are wide differences between technological training and productive efficiency between companies and

between countries, as a result of cumulative processes involving technical progress (...);

3. The behavior of economic agents, in this context of technical and economic change, does not follow maximizing principles, but strategies, routines and practical rules that are more appropriate to the environment of uncertainty and complexity (...);

4 In addition to strictly economic signals and incentives, aspects of the institutional and organizational environment exert on economic agents the role of an extra-market externality in innovation processes. (...);

5. The institutional, scientific and public policy contexts make it especially relevant for the search and selection of innovation in the face of major technological changes (...);

6. When examining the effects of international trade in the context of technological change on the economies of countries, one must consider not only the traditional static allocative efficiency (Ricardina), derived from comparative advantages, but also the dynamic efficiencies, whether the "Schumpeterian", linked to technological dynamism, or "growth", associated with long-term macroeconomic growth rates. It turns out that these are not coincidental, and important trade-offs may arise between them (...);

7. Analogously, the trade-off between allocative and growth efficiencies stems from the absence of full employment and variability of economic growth rates as a general rule, so that the macroeconomic efficiency of specialization based on comparative advantages depends on microeconomic factors, among which the price and income elasticities of traded products (...) (gn)

(Org. Revista Brasileira de Inovação, 2011 p 234-235) et al ibidem POSSAS, Mario Luiz; DOSI, Giovanni: Innovative Ideas. RBI- Brazilian Journal of Innovation. v 10, n 2, 290 p Jul/Dec 2011. ed. UNICAMP. Campinas-SP, 2011 p 234-235). [32]

Here we will make a broad reflection on the seven highlighted points of the work of POSSAS, 2011 (emphasis added) to enrich whether these referential instruments of economic-market logic that impact on technological decision, Let's go to them in their levels from 1 to 7 in a way cadenced to reallocate these operative instruments. Note that when we portray the instruments of digital law in the sphere of its level 1 complexity, it deals with the economic-mercantile complexity when advancing on the cases referring to the application and expansion of digital law, resizing them within their bases for the gains comprised between the extramarket and extrajurigen sectors, identifying within this expansionist dynamo the sphere of digital law in operability connected with the market, and evaluating its direct link to these, without however connecting them to their more endless gradients of instrumentalization and randomization present in them.

Following levels 2 onwards, the author gives us a "naturalization" of this operative-instrumental aspect by listing in a fruitful way, the elements of this plurisignificant composition and the gradients to be punctuated, in order to

obtain the appropriate instruments in digital law in a way more transparent and connected with the reality of the market. He listed that there is an interval between technical progress and its interruption, highlighting that they are interrupted from new paradigms within the very dynamics of the digital and technological product; Another point in the same direction broadens our view on the aspect of technical-operative training of technological efficiency itself, identifying the technocratic bias of thought when referencing that, it is only about the accumulation of acquired knowledge and not innovation in this field. moment of its synthesis in an isolated and emerging form, as some theorists think. He emphasizes that it is something else, there is a “plus” in this factual context.

Another instrument revisited by the author at level 3 on the behavior of economic agents, in the contexts of change between the catalyst elements of this performance, which advances, according to POSSAS, 2011 in a natural sense to the technological phenomenon; because the latter, in the author's view, does not seek to immediately address the intrinsic and underlying elements of its basic assertion to be implemented, but remodeled from extrinsic elements such as: strategy, praxiological rules and market adaptations within its sphere of uncertainties and assumptions to be discovered pro-tempore. It is elementary to bring up these supporting elements within their instrumental-operative complexity in order to subsequently visualize innovation from these externalizing elements.

Another point in the subsequent levels, we can highlight the performative quality of the instrumental digital bias, which is offered to us in order to synthesize the extra-market secularity, postulating that in the institutional and organic ambience the tonics that involve the digital events, promote in the agents the change to be internalized in its internal alternating processes within the scope of innovativeness and the degree of economic scalability. When we refer to institutional contexts, this internality becomes more transparent, as it is possible to extract the organic character of digital-technological production, a classic example to be observed is the implementation of public policies, as it presents two different scopes in its institutionalized meaning. Let's see:

- a) The first explanation will be a public policy aimed at reducing the illiteracy rate, in the first school years, here we will face the core of the problem from the relationship between literacy and initial age levels (first childhood milestone, for example); in this event, observe that the initial focus is the student, the focus of the process is the ways of how to properly educate and teach literacy, and the final focus is on the instruments that indicate illiteracy of the student in an institutional way;
- b) A second public policy aimed at increasing digital inclusion, in the first school years with a priority focus on gaining knowledge in the digital area, the core of the problem is digital inclusion, that is, that more students have the prospect of access to digital media; In

the meantime, the main focus is the digitally excluded student, the focus of the process is the qualitative and quantitative use of the instrumental means of technology for the acquisition of skills in this segment, and the final focus is on the digital inclusion of the student. Note that digital media only reflect a reality for which the digital teaching method should be employed and not necessarily a purpose, as in previous public policy.

Another related point is in the international sphere, when trade and economic biases are on the agenda, here much more than allocative gains, (as mentioned in the students' public policy), operationalize other vectors, such as: resources for efficient production and for competitiveness among other Schumpeterian gains; In this case, it is possible to observe that the focus is on external gains, which, linked to commercialization, present systemic innovation as a purpose for the entire production process involved and not objective uniqueness.

In this same line of reasoning are the trade-offs of digital instruments in the face of other instruments, such as: income, employment and macro and microeconomic growth. Digital technology is incorporated into the context of production specialization, it has in itself potential gains in price-elasticity, that is, it minimizes and smoothes production costs, among other benefits. However, if analyzed only from the point of view of commercialization, without assessing which elements make them immediate opposition (trade-offs) within their cost-opportunity, we can have negative points in the process that instrumentalize the digital operative dynamics the form, and not the context of its final products that can, in the end, be deterministic for the institutionalized policy in the digital bias of the operative-marketing relationship.

#### **2.2.12. Expansion of Digital Law**

It is important to place these points on the instrumentalizing logic of digital media, from the economic-marketing point of view, in order to finally understand another point of this context, its expanded legal reality. Observing these points and the biases of the economic-financial context of the sphere of digital instruments in the productive and cognitive process, we will now move on to the focus of this element within its expanded legal component, and its scope for the digital right properly sought.

It is important to focus on its origins, based on a macro vision, that is, an expanded vision of digital law, as it is known that the nature of this right is closely linked to the expansion and retraction of technological and digital activity in its use. directly in the normative relations of day-to-day life. When we refer to the expansion of digital law, we are alluding to its outreach performance, and its central elements, which make it possible in this social endeavor. Returning to the previous topic, it is necessary to make some reflections on the scope of digital law, within the following basic premises to be questioned and answered;

What really is the current dimension of contemporary

digital law? Did the virtual barriers expand this proposal? Is the amplitude digital or only normative?

These questions populate the popular imagination and it is necessary to properly formulate them for a better understanding of the premises and their extension. In order to understand this expansive bias, it is necessary to be guided by its cumulative, integrative character and its increasing yields to specific and general knowledge and its praxiological nature in the reality of individuals. In this line of reasoning, important properties are pondered by the perspective of (FILHO; SILVEIRA, 2011 p 272) when adimensionalizing the purpose of this expansion: in verbis:

Finally, with regard to the properties of the knowledge base, it is possible to distinguish two essential characteristics:

In the first, technological knowledge is defined by its degree of specificity, codification and complexity.

Knowledge is said to be specific insofar as it is codified and focused on industrial applications. At the other extreme, knowledge is broad and generalized, and can be applied in different domains and used as a subject for scientific research.

The second feature is linked to the mode of transmission of knowledge. Codified and simple knowledge (without barriers to processing) can be easily transmitted through publications, patents or even licenses, otherwise, the tacit nature (Tacitness) of knowledge, which is not public, can hinder technical dissemination among agents.

(Org. RBI- Brazilian Journal of Innovation. op cit et al FILHO, José Eustáquio R. V; SILVEIRA, José Maria FJ: In an Evolutionary Model of Agricultural Learning. RBI- vol. 10 n] 2. July?December 2011. ed. Unicamp. Campinas-SP, 2011 p 272-273). [33]

Other authors brought us closer to the gradient that involves the digital sphere, and its modifiability, it is clear to us that it is about the profusion of knowledge in a broad sense; in this case it involves projecting legal knowledge, which means placing its technical-scientific content in degrees of publicity. it is observed that at each investment within the technological complexity, there is obviously an act to be regulated, whether by principles, specific regulations, among others.

All of this aims to guarantee legal security, transparency in Tacitness and finally the processes of knowledge transmission in its expanded segments, examples: innovativeness, publicity, transitivity between brands and patents and all the know-how that involves the application of the public domain. It is pertinent, however, to safeguard the cases that involve intellectual property in its episteme nature, and its amplitude gradient in its content of extra legal domain opportunized. This entire gradient of infinitudes is random, as an endo content to be normatively pacified is evident, so that the very human achievements of transfer, exchange and integration remain homogenized. It is noticeable that throughout the entire rite of alternating and intense processes present in scientific and technological knowledge, it needs a standardization for its own diffusion

and realization in the field of real events the reality of digital law.

In this wake of preliminary findings, the expansionism of digital law maintains a strict relationship of contiguity (proximity) with the elements of digital and technological taxonomy. this is verifiable when we use which assertion refers us to such a proposal and project and the thresholds involved in its execution. Legal institutes, therefore, are permeated and need to be better disseminated, so that, in the end, they are continent with the coercive force of law in order to protect the digital society as an organic whole. Another stimulating factor for the expansion of digital law lies in what is known today of its applicability in international private law, where the productive forces of globalization mirror such a nuance in the sense of the legal requirement for the intensity and regularity of the capital employed in specific interrelations. In this sense, he assures us (BARBOSA, 2015 p 131) in verbis:

Within the scope of globalization, market interests are eager for processes that are capable of promoting more and more the concentration and centralization of capital, for which reason it articulates around itself companies, markets, productive forces, decision-making centers, alliances, strategies and planning of corporations that extend and surpass provinces, nations and continents, islands, archipelagos, seas and oceans.

(Org. BARBOSA, 2015 p 131 Op cit et al (IANNI, 1994)

All this constancy between capital, work, people, financial flows, exchange flows, information flow, technology flow leads digital law to a transnationalized legal taxonomy. Nowadays, it is no longer possible to talk about the taxonomy of digital law only with a local or regional focus.

What is verified is a self-correcting work between national legal systems in expressly correlating these forces, for the regularity of their internal law. However, given the gradient and speed that digital law has today in the global sphere, its conduction without the dealings of international law for its legal completeness is unimaginable. The major elements for this massification are today present in the international reality, we see, for example, high technology events, which constantly demand improvements in the internal regulatory systems of countries.

Digital law, however, employs such a wide spread that the entire world legal universe looks for global actors in the construction of a desirable and protected legal platform within the international community. Actors and international organizations such as the UN, OAS, CIJ, OECD, among others, lack operational capacity to achieve current digital law events. Finally, due to the planetary character of digital law, it brought with it a plethora of forces for integration between its bases with international legal elements, which aim to deal with: human rights, Biodiversity, sustainability, right to information, among others. therefore begins the era of technical cooperation between multilateral bodies to enable their action in society. in this way, what is verified is an expanded digital right, in its juridical and scientific scope, which, corroborated with the biases of technology and

aggregated knowledge, has a turning point that also needs to be treated in an extensive and international way.

### 2.2.13. Expansion of Digital Law

In the previous topic, we worked on the broadening effects of the legal order of digital law. At this point, it is obvious to verify another component, in this case its degree of expansion in the legal area.

The degree of expansion of digital law is presented to us today, based on its massification, because in an economy where a good part of its production has a strict direct and indirect relationship with digital media, in this case a uniformity that guarantees its legal integrity, it is essential for the digital economy itself, and for its side effects with the support of the legal world. Furthermore, at first it is necessary to demonstrate some celebrities translated by the digital economy into people's lives; In this excerpt (Aloo, 2021 p 1) we have the following propositions: "At all times increasingly demanding consumers are always looking for convenience and quick solutions for their day-to-day demands"; And we can still focus on the digital economy from a conceptual perspective. In the words of (Castro, Bruna 2019 et al ABDI).

(...) *"Internet of Things (IOT), Cloud Computing, Artificial Intelligence, Big Data and other technologies are used to collect, store and share information digitally, and transform social interactions in addition to allowing economic activities to be more flexible, agile and intelligent. This is the scenario of the Digital Economy, also called the Internet Economy, New Economy or Web Economy"* And he still makes the following reflection in order to organize the ideas of this expansion in the New Economy.

*"The Digital Economy deals with the intensive use of new Information and Communications Technologies (ICT), contributing as a form of treatment between individuals, companies and States. Data and information are key production factors, contributing to increased productivity and cost reduction, process changes and the creation of new business models and jobs. In the context of globalization, market interests are eager for processes"*. And it is in this vein about its degree of expansion within Digital Law, it is possible to faithfully portray its degree of growth in the New Economy. In this case, it is important to refer to the regulatory frameworks of this assertion, so that, in order to gain levels of econometric scalability, we can reach the highest means that the expansion of digital law has brought to our present and future days. In this preliminary, asserts us (NOGUEIRA, KUBOTA; and MILANI, 2011 p 408) and within the aspect of its development the Digital Law via Digital Economy that presents a content to be expanded, in this perspective of structure of the new economy. Let's look at historical points of this chronology:

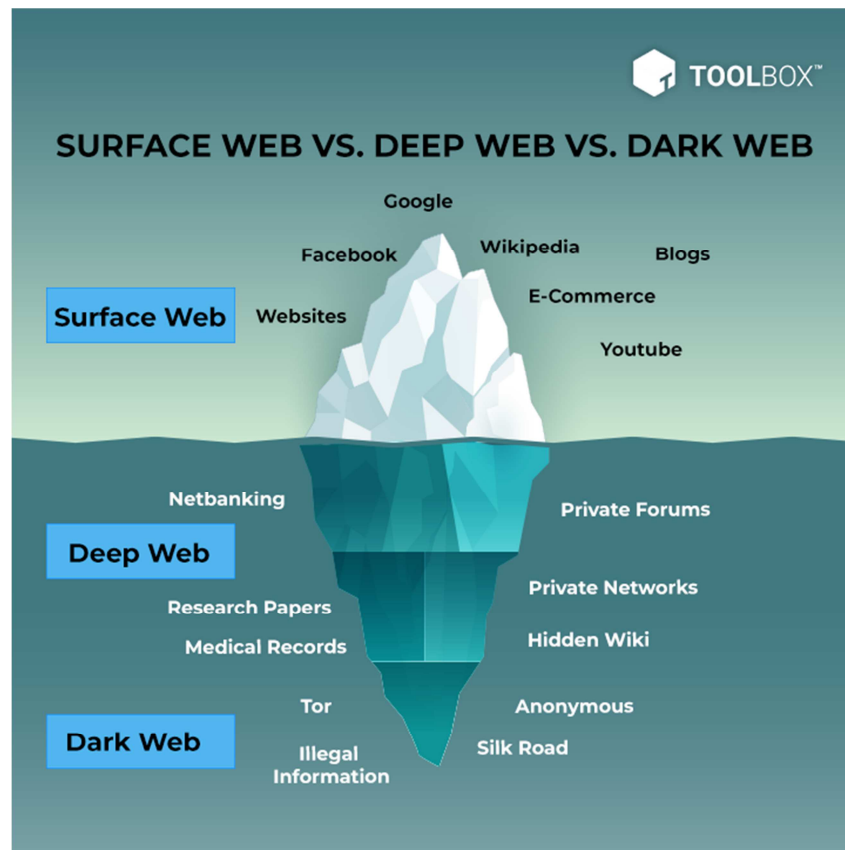
From the 1990s, the Brazilian government began to adopt

new instruments aimed at increasing the acquisition of technological skills and increasing the productivity of companies. Among them, the National Fund for Scientific and Technological Development (FNDCT) deserves to be highlighted, with its Sectorial Funds (FS), a subsidized credit instrument aimed at promoting innovative activities, aimed at establishing Research and Development (R&D) routines in companies in partnership with universities and centers of research institutes, even, together with other companies (Competitors or suppliers). Through it, an attempt was made to overcome a set of bottlenecks found in the National System of CT & I. Thus, its conception aimed at perpetuating funding, reducing regional disparities, focusing on strategic areas, and facilitating the creation of networks of interaction between productive agents within the concept of information society, adopted by public policy makers (VALLE et al., 2002)

Org. RBI - Brazilian Journal of Innovation. vol 10 n 1 Jan/Jun 2011 et al NOGUEIRA, Mauro Oddo; KUBOTA, Luis Claudio; MILANI, Daniele Nogueira: CT Info: An action in depth. Brazilian Journal of Innovation. vol 10 n 2, 240 p Jul/Dec, 2011 ed. Unicamp. Campinas/SP, 2011 p 408).

In this desideratum it was clear that the Start was given from the implementation of public policies in the national science and technology segment. The fact that we start from this point to carry out a rereading of the expansive gradient of digital law is justified by the pressing reason that we have expansion as an integrating element of digital law, since we know that it still brings with it the advances experienced, taking based on the axes of implementation of public policies aimed at and centered on technological development. In view of this, this resumption is important to orient ourselves spatially, and to obtain a better densification of the perspective of digital law as a mobilizing agent in the social field.

All this is perfected from these innovation players in the evolutionary adaptation in the field between technology-science and information society, which brings in itself the past links by which digital law must constantly permeate them. In this context, it is important to emphasize the effective and uncontested evolutionary action of new technologies, highlighting the bias within the digital law itself, when in itself it brings in its core, the solution for the specific regulation of several factors in this segment, highlight for example; for virtual crimes, and in cybersecurity relations, and the gradients that involve criminal prosecution in a broad sense as an elementary contribution in the segment of economic and digital criminal crime. A rather peculiar diagram is presented to us by this sphere diagrammable by (ASHTARI, Houssein, 2022 ps/n): in photo below



**Figure 2.** [36] ASTHARI, H. (2022). *Eletrônica Orgânica*. Recuperado em 2 de novembro de 2020, em <https://www.spiceworks.com/it-security/security-general/articles/dark-web-vs-deep-web/amp/>.

Accessed on February 07, 2023. html.

These social pathologies are commonly highlighted within the gradients of the Deep Web and the Dark Web. According to (Cartilha digital, 2021 p 14) this assertion is conceived as follows: “ (...) What are the main characteristics of digital law? Little legislation, mutability and dynamism, as they rely on customary law, the use of analogy and arbitration”(…). (Digital booklet op cit et al 2021 p 14).

It is reasonably safe to undertake the following understanding of the systemic setting, through which the principle of digital law will be expanded, so that we can visualize the opposing aspects of its judging advent. From here, it is already possible to broaden the vision based on digital law, in terms of summarily the explanatory events in their responsive contexts of the jurisdictional sphere, which according to (PINTO; ANDRADE, 2021) is thus perfected

Society has undergone unimaginable technological developments in recent times, and it is true that many of these advances have challenged, and still challenge, both the creation of new legislation and the reflection of such changes in judicial decision-making processes, in view of the innovations that they mean. The Institute of Civil Responsibility in Digital Law is undoubtedly something new that is part of this challenge.

Digital media are a reality and there is no doubt that their use has become essential, not only for accessing information, but also for accessing the most diverse services.

(Digital Law Primer. Op cit et al (PINTO, B; ANDRADE, I. 2021 p 19)

Here, the strict relationship of its amplitude makes it clear that digital law has direct connections with the legal reality, in its responsive nature, and still maintains another extrajudicial side, which is the gradient of essentiality of the accessed information, being the reflection of the latter, the elements to be worked on, in the context of products and services aimed at the end user, who, by virtue of the legislation, is the beneficiary of the digital jurisdiction to be used properly.

The phenomenal events portrayed here redirect us to the dynamic sense of the processes of alternation, significance and relevance of digital content, in the sphere of treatment, thought and executability of the digital law genre, in current contexts. It is opportune to highlight the topological meaning of these assertions, since, in addition to their internal content where they are reproduced, the cases to be regulated in digital law, the external content of digital law is also positive, where their random bases are measured nowadays. In this sense, it is necessary to identify that the scope of the externalizing content of digital law is, in short, related to its adequacy in its realistic effects in its heterodynamic field of action;

When we refer to the dynamic hetero aspect in digital law, we are actually connecting it, with the plurality of random and externalizing situations of its sphere in the primary field of legal otherness. For this reason, it is not possible to

emphasize only the isolated dynamic relevance of digital law in the domestic legal system, it is necessary to connect it with other spheres, namely: financial, budgetary, economic, penalizing, civil, administrative content., among other legal dictates, known from Brazilian realism. We observe a decriminalizing content in this sense, we will do a vertical and horizontal analysis in digital law to translate its effectiveness and essentiality. In the words of (OLIVEIRA, 2021 p 29-30), this assertion finds the following support:

(...) The difference, in essence, that we can draw from the configuration of embezzlement or theft, is the voluntary participation (of course mistaken, or more technically by mistake) of the victim in the criminal action, in embezzlement, whereas society p, in theft, there is no use of an action taken in error, but of the creation of lack of vigilance.

Some issues that can be approximated in relation to the subject concern the appropriateness of decriminalizing institutes in relation to these crimes.

In other words, do cyber theft and electronic fraud admit conditional suspension of proceedings, criminal transaction and criminal non-prosecution agreement?

With regard to the first two, the answer is disappointingly negative. Conditional suspension requires a minimum sentence of less than one year; the transaction the maximum penalty of not more than two. As these crimes have, in the qualified type, the sentence of four to eight years, there is no doubt that such figures do not fit.

(OLIVEIRA, Marcelo Ribeiro. Criminal Persecution and New Technologies: Virtual Crimes and Cybersecurity - Deep Web and Dark Web. digital evidence. Gran Cursos On-line, Brasília-DF, 2021 p 29-30)

We deal with criminal events in their essentiality with digital law, where it is explained by the author above in an anomalous gradient, when present the requirements of criminal prosecution, of decriminalizing institutes, in the face of vertical events, criminogens of the type in the criminal qualifier, highlight here for cyberspace crimes; and of the horizontal events crimes of the type that presents the qualifier, strange, in our penalizing code.

Digital law in these contexts presents externalizing content, therefore heterodynamic to the national criminal procedure.

#### 2.2.14. Pro-Future Digital Law

It was of paramount importance to portray the environments through which digital law was emancipated, and still continues to take denser steps today. this becomes clear when we realize the leverage of new legal institutes in endorsing national and international order. Within this perspective, it is important to highlight its dynamism in the face of innovations that digital law has experienced in our behavioral reality. Note this view in the words of (NEIVA; BAIRRAL, 2021p Apud et al PECK; SLEIMAN, 2019 in verbis:

“There is no denying that the extension of private, academic and social life has repercussions on the Internet, directly or indirectly, where the effects of real life are

propagated, and sometimes the opposite; The virtual has consequences in the real world. as there is no need to talk about mere use for a simple exchange of information, it is recognizably an environment for carrying out consumer and business relationships, but in a medium that demonstrates its interference in the relationships that are created with each touch more and more palpable.

According to specialists in Digital Law Patrícia Peck Pinheiro and Cristina Moraes Sleiman, some important aspects should be taken into account:

- a) Every technological change is a social, behavioral and therefore legal change (...)
- b) Furthermore, it is necessary to consider that, in terms of the knowledge revolution, the value of information as an intangible asset is growing (...)
- c) Human relations and the expression of the manifestation of will take a new form, or if they occur by different electronic means and in real time and in turn require new knowledge in the search for evidence (...)
- d) Business and relationships in the Digital Age are emotional and there is a limit between technology and human beings (...);
- e) The issue of territoriality cannot be forgotten, since we have transactions and relationships, whether of consumption or simply communication between different legal systems or even crimes that begin with the machine that is physically located in a given country, but the result or internet service used is in another. that is, we have the challenge of drawing up the best strategy. (PECK; SLEMAN, 2019). Org. Cartilha Digital, 2021 p 29-30 Ibidem et al NEIVA; BAIRRAL et al PECK; SLEIMAN, 2019 in verbis Op cit 2021 p 29-30). [34]

In this abundant scenario, full of findings, this myriad of completeness is something new that needs to be treated in a gradient of legal detail for reasons where the sphere of law has impacted, and presented itself as a pro-tempore object, which connected to human praxis has pro-importance. future in the internalities and externalities of social life.

As highlighted by the authors above, it is necessary to better interpret the digital law, beyond the merely juridical aspect, this is clear, just observe the endo content that it translates into the extension of private life, being evident its repercussion in academic and social interactions, which has ceased to be a mere transfer of compiled data and currently represents biases in the business, professional sphere and even in the order of public law, as it externalizes its faces to more emblematic quotients that, spreading out, are binding on International Law.

In this sense, digital law has become an amalgamation of modern society, as it interacts primarily with innovation and technology, bridging this environment for the development of guaranteeing relationships in society. “*The virtual environment has become Real*” (Santos, PRV, 2022 in verbis).

It also scores the experts in question, on the jurisdictional nature of digital law, within the principle of

detritorialization of nations, and suggests new ways to face their day-to-day cases. In a synthetic way pointed out by the authors, it purposely places us in an environment, in which digital law describes a whole singularity, in its transmutation efficiency used by innovative technology, which actively brings with it new transitions to the cognitive-behavioral of individuals, that is, there are a daily reanalysis of the "I" in the digital world, in the socio-anthropological context. Another category is in the extrajudicial elements called "intangible assets", these elements, which can be measured accounting and financially, within the invisible capital of companies such as trademarks and patents (RICARDINO, 2016) and are currently tradable products of great added value in the economy.

Another *how* presented in the authors' view, about digital law and its extra legal content, is in the capacity of the virtual medium to change the forms of human interaction, because that means to say that; the real will is to interfere through the power of structured knowledge within the digital bias, where there is a gradient of modifiability in what we currently know as *Homus economicus*.

The business part also gained externalities with business law, from its professionalization, which involves digital lawyers, even in the creation of new legal portfolios, which gain unimaginable contours in their sphere of action. It is observed in inter-business relations the business environment if: "platformed" today, with the practices of e-commerce, market place, and digital commerce itself, we have the spread of this content in the real sphere.

In the part that links the so-called "detritoriality", we have other connection points between the digital law and its connection with the pro-future law, it is enough to look at the communicational flows, the flows of people and the economic flows, to foresee a potential of a next path on the horizon of transition between the current format and the new molds of this plurisignification today. This becomes clear when we look at the new sources of virtual reality, the metaverse among other segmentations, which if incorporated into practical life, will restructure our entire conception of physical world as we know it. In this line of reasoning, digital law has a large space for development, as it will connect virtualized dictates to the praxis of the individual's reality in the sphere of his achievements.

The transformation of digital law, as a future perspective, fits certain segments in both the public and private spheres. Among them we can emphasize the digital transformation already impacting municipalities in their political-institutional capacity, let's see; (GOVE, 2022 p 16);

*"The institutional capacity pillar assesses aspects such as planning, laws, organizational charts, budget, demography that create minimum institutional conditions for municipal digital transformation"* (Org. GOVE. Panoramas da Transformação Digital Municipal do Brasil, 2022 p 16). In these contexts, the object and purpose of the pro-future digital law gains externalities that broaden the worldview, bringing the signs of the future to the present (GOVE, 2022). " (...) also emphasizes this futuristic perspective for digital law: The futuristic macro vision introduces us to a great

space for digital law and its interconnections to rediscover the realism of the individual in the social space of citizenship.

The analysis of digital law, in order to extract the academic content, in an unexpected but reflective way, is that there is a large field to be filled by the Superior Courts, when connected, the right to freedom, image, personality, information with the biases of the digital platforms, in summary that is to enhance the adequate treatment of information always connected with the constitutionalized principles.

### 3. Conclusion

The present work had the purpose of translating, in a responsive way, the guiding elements of Digital Law today with constitutional rights and effective citizenship.

In this tone, we tried to identify the elements that could answer the question proposed in the problem question, on which elements the phenomena of digital law are linked within their connection with the expansion and breadth.

We found that the gradients involved and worked on throughout the research, allowed us to verify from different perspectives, that both the expansion and the amplitude express the emerging content for the growth of digital law itself today, being the guide of this proposition.

At this point, we can state that there are no counterpoints between the expansion and expansion of digital law, with no hierarchy gradients between them.

Finally, we understand that digital law, via the cases presented, always formulate new propositions, which, within the limits of a monographic work, encounter academic and spatial limitations.

The randomization of the digital right between the object and the purpose are closely connected in the current times of innovative events and digital transformation, leaving a wide range to be structured so that in its future relationship we have a valued suitability within the national and global constitutional principles.

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