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Telecommunications Law Indicators for Comparative Studies (TLICS) Model: A Hermeneutical Approach

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BIOGRAPHY

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ABSTRACT

This article proposes a model for identification of juridical variables to be used in ICT comparative analyses from the perspective of the information revolution category and dependence of economic development upon ICT: the Telecommunications Law Indicators for Comparative Studies (TLICS) model. The research question is: what is the correlation between traditional juridical theories on interpretation and the institutional variables used in comparative analyses of ICT regulatory models? The article is organized in three main parts. A review of the literature is performed in the first part, in which ICT comparative analyses are scrutinized to show how juridical variables are incorporated by them. The second part delves into the methodology, theory, and operational tool for the proposed model. The third part identifies dimensions and variables apt to depict the juridical framework of ICT comparative analyses. Betti's prescriptive hermeneutics and Hesse's hermeneutics are adopted as methodologies of approach, based upon the institutional theory of law (Santi Romano) and Schmitt's concept of institutional guarantees (*institutionelle Garantien*). As a main outcome, this article shows that juridical methodology, theory, and operative tools are important assets to assure the commensurability of institutional variables usually adopted by comparative research studies dealing with the relationship between development and ICT.

Keywords

Hermeneutics, institutional guarantees, ICT juridical variables, Telecommunications Law Indicators for Comparative Studies (TLICS) Model.

INTRODUCTION

As overwhelming as the ICT regulation presents itself, it pales when compared with the research on comparative regulatory models of information and communication. This branch of ICT studies has been located among several closely related subjects, such as the reassertion of state regulatory power through market and policy dependence (Polanyi 1944, Vogel 1996), technological determinism (Toffler 1980, Masuda 1981, Beniger 1986, Pitroda 1993), supranational interventions for the development of the information society (Tsipouri 2000), ICT role for development (World Bank 1999), state choice on sectorial public policies (Hoberg 2001), institutional incentives role for the adoption of new technologies (OTA 1990), developing countries' investment priorities on ICT infrastructure (Castells 2001), relative advantages in the adoption of ICT by least developed and developing countries by means of leapfrogging development (Singh 1999), or mature technology competitive prices (Price and Noll 1998), national information infrastructure (NII) key function for least developed and developing countries (Talero 1997), social networks role for the information society (Rogers 1995), regulatory governance (Levy e Spiller 1996), digital divide broadening (ITU 1985, PNUD 1999, Rodríguez and Wilson 2000, ITU 2010), and regulatory priorities definition as (i) interconnection (ITU 2000-2001), (ii) ICT universal access (ITU 2003), (iii) licensing and regulatory frameworks updating (ITU 2004-2005), (iv) broadband access (ITU 2006), (v) next-generation networks (ITU 2007), (vi) broadband networks and ICT equipment and services (ITU 2008), and (vii) effective hands-on/hands-off approach regulation (ITU 2009).

Amidst that whole myriad of approaches, the comparison of national ICT regulatory models has been implemented aiming to clarify the different investment opportunities in the (tele)communications sector. It is designed to predict policy tools for increasing competition, quality of service, and universal service. In sum, comparative research on ICT regulatory models builds the necessary knowledge prone to update countries policy towards the information revolution.

On the verge of the transition from the industrial society to the network-society (Castells and Cardoso 2006), and decades after Albion's (1932) proposition of applying the term *communication revolution* as an autonomous theoretical category that functions as a substitute for the traditional understanding of telecommunications as byproducts of a broader social structure, information and communications technologies are nowadays what industries and railroads were for the industrial revolution (Wilson 2006). Consequently, ICT should be conceived strategically as the main assets to be dealt with by public policies for development. The recent worldwide movement of privatization, monopoly divestitures and market-oriented regulation in the telecommunication sector added strain to the government ability to enforce its rules. The changing regulatory perspective from a hands-on to a hands-off approach based on institutional incentives towards competition put institutional variables under the spotlights.

The basic building blocks for the analysis of national regulatory models have been, nonetheless, consolidated in all-encompassing indicators, that mixed legal concepts many times incommensurable and non-interchangeable, such as public service, universal service, regulation, intellectual property rights, and so forth. To mention but one example, the characterization of a given telecommunication service as a public service produces different consequences whether it is related to a common law or a civil law tradition. Moreover, within the same juridical tradition, the concept of public service may be used to describe a service mandatorily rendered by a state owned company, as it was the case in Brazil between the promulgation of the Constitution of 1988 and the approval of the 8th Amendment of 1995, or a service rendered by private owned companies through government concessions, that portrays different degrees of government control through protected franchises, quarantines, market-oriented regulation combined with tariff regulation, cradle-to-grave regulation or a predominantly market basis regulation, as was the case of the United States fixed-phone policy chronological phases (Huber, Kellog and Thorne 1999). By the same token, the juridical definition of a given telecommunication service, not infrequently, reveals hidden differences, as one can see at the Brazilian legal definition of the traditional Public Switched Telephone Service – Portuguese acronym STFC. Under the Brazilian regulation, the STFC is limited to a maximum transmission rate of 64kbps¹, leaving to another subset of licenses² – the Multimedia Communication Service (SCM) – all the fixed telecommunications services situated above that transmission speed, which prevents STFC operators from delivering broadband under the same juridical regime applicable to the plain old telecommunication service.

ICT comparative research notably lacks the means to go deep into the juridical dimension and, therewith, the differences and similarities of the institutional guarantees that constitute each legal concept vaguely cited as independent variables for the comparison of national regulatory models. In order to incorporate the variety of legal components that permeates institutional variables into the ICT comparative research, it is imperative to develop a specific juridical method for comparative analyses that bring to the surface more than just similarities of words, but truly juridical meanings as commensurable variables. Such variables should depict the actual legal consequences of a given juridical concept. As with the practice of neglecting cultural variables (Geva-May 2002) in comparative analyses, their juridical dimension has been likewise overlooked mainly due to the lack of a method that makes full use of the juridical theory of interpretation to show the legal concepts capturing context. The juridical dimension is an essential part of the regulatory contextual anatomy and, therefore, it is indispensable for the understanding of the actual differences between regulatory models, as an antidote to the recurrent intents of transplanting foreign practices and institutions as international assistance (Huddleston 1999) to incompatible socioeconomic, political and juridical realities. The regulatory model anatomy of a given country cannot be fully comprehended without its legal component, which has been taken for granted based upon solely the similarity of juridical nomenclature present in very different legal frameworks and traditions. Notwithstanding the similarity of legal terms may be partially correct, it conceals the intricate network of meanings that gives a unique identity to each term in a given country's legal framework and juridical tradition.

The distinct issue of juridical variable commensurability deserves a closer look, for the ICT comparative research depends upon the precision of dimensions and variables. Juridical variables show their content exclusively through a specific set of questions embedded in a hermeneutic approach that brings to light what lies beneath the surface of a legal concept. This article aims to lay the basis for a model of juridical variables useful in the ICT comparative research.

¹The above mentioned speed limitation of 64kbps is currently present in the regulation enacted by the National Telecommunication Agency (ANATEL), in the Annexes of the ANATEL's Resolution 166, of September 28th, 1999, and Resolution 426, of December 9th, 2005.

²See ANATEL's Resolutions 252/2001 and 328/2003.

LITERATURE REVIEW ON ICT COMPARATIVE RESEARCH INDICATORS AND REGULATORY ENVIRONMENT

Among ICT comparative researches focusing on institutional variables, the following sets of articles and books deserve special consideration for the purpose of devising juridical dimensions and variables.

Literature on right to communicate indicators

The Campaign for Communication Rights in the Information Society (CRIS Campaign) is an example of the efforts that have been made to devise indicators that measure the effectiveness of the right to communicate interpreted as a set of indivisible and complementary basic rights (Intervozes 2005). The CRIS Campaign can be described as an international advocacy network that reflects, in civil society organizations, the goals first proposed by Jean d'Arcy (1969) and took by the Sweden delegation to the UNESCO's General Assembly of 1974. The campaign represents a set of ideals that can be framed in the concept of right to communicate, and the movement of non-aligned nations for a New World Information and Communication Order (NWICO) of the 1970s, as well as the International Commission for the Study of Communication Problems coordinated by Sean MacBride and instituted by UNESCO in 1977 – the MacBride Commission –, which presented its final report in 1980³, with repercussions that followed at the Resolution 4/19, adopted by the UNESCO's General Assembly Conference of 1980, in Belgrade. Among the issues that polarized the international debate on communication policy in the 1970s, were those that identified the NWICO's Third World tributaries. They can be summarized in the following variables: (i) flow of information, more specifically, a critique of the prevalent one-way flow of information West-East and North-South; (ii) development of national media; (iii) cultural identity; (iv) strengthening of independence and self-reliance; (v) access-participation and democratization, all absorbed, with some other aspects, by the encompassing concept of right to communicate (Carlsson 2003). The 2005 *Intervozes* report financed by the Ford Foundation (Intervozes 2005) followed this movement tradition and applies four parameters – legal basis, rules enforcement, actors' roles, and future tendencies – to evaluate the indicators that best represent the right to communicate, taking into account the main role of public policies for the design of regulatory processes. The four pillars on which that study relies upon are: (A) creation of democratic environment: civic culture; (B) rescuing public knowledge; (C) civil and civic liberties in the information society; (D) securing ICT equal access at reasonable prices. Illustratively, the first dimension of civic culture relies upon several attributes of freedom of expression, freedom of the press, access to public records, access to information of private corporations, right of everyone to access the media, and social participation in media public policy. This pillar and attributes, among other pillars and attributes, are connected to specific juridical indicators, such as rule enforcement, actor's role, and future tendencies. In the case of freedom of expression, that study identified three indicators: (A1.1) constitutional provisions and laws that guarantee the freedom of expression; (A1.2) the lack of state or private actions that constrains the freedoms of expression and its legal guarantees; (A1.3) active measures towards promotion of an environment of open and broad discussions. It is worth pointing out that the study considers as an indicator of the freedom of expression the generic reference to constitutional provisions and infra-constitutional guarantees. Like fate if reserved to all the remaining attributes of the freedom of the press, access to public records, access to information of private corporations, right to everyone to access media, and social participation in media public policy. The use of generic legal references for each attribute reflects the division adopted by that study, which is based upon transversal subjects that encompass the effectiveness of legal aspects and rights. Instead of describing the freedom of expression as one single variable, that study put together a set of juridical variables – freedom of expression, freedom of the press, plurality of the media – under the umbrella of an encompassing civic culture dimension. As a consequence, it construes a conceptual network of juridical attributes that depends upon rules, enforcement, actors' roles and future tendencies indicators. The complete picture depicted by those indicators gives a more comprehensive view of the civic culture component of the right to communicate, by way of amalgamating them under a given conceptual pillar. This procedure of clarifying dimensions of the right to communicate, though, does not pave the way to reassemble the central concept of the right to communicate from scratch. Studies based upon indicators as generic juridical concepts translated into legal statutes lack the kind of systematic approach given by juridical principles of interpretation. That is not the case of the aforementioned study from *Intervozes*, which go far beyond the mere list of statutory expressions of the right to communicate, but, in doing so, it is not backed by a previous juridical category from the theory of interpretation, for the adopted indicators refer to a set of attributes from the Brazilian legal framework, in spite of comparing expected attributes with the ones present in a given country's legal system.

In a subsequent study limited to the analysis of broadcasting, *Intervozes* (2010) addresses the right to communicate from the viewpoint of the material conditions of that right's fruition, especially those dependent on state action, socioeconomic structure, and media ownership. That study proposes seven dimensions, each one with two to six indicators, as follows: (i)

³The commission final report was entitled *Many Voices, One World. Communication and Society, Today and Tomorrow. Towards a New, More Just and More Efficient World Information and Communication Order.*

System Profile (1st dimension), divided into the indicators of *number of media operators*, *integration among media types*, and *media concentration*; (ii) Media and Political Power (2nd dimension), divided into the indicators of *number of licenses*, and *number of politicians that own media*; (iii) Content Diversity (3rd dimension), divided into the indicators of *local content*, *independent content*, *radio and TV licenses*, *demographic distribution*, *program/content variety*, and *program origin*; (iv) Access to Media (4th dimension), divided into the indicators of *individual access to media*, *Internet access*, and *communication services prices*; (v) Social Participation, Content Control and Democratic Management (5th dimension), divided into the indicators of *active tools for content control*, *social participation in public and community media*, *social participation in license procedures*, and *social participation in the shaping of media public policy*; (vi) Communication Financing (6th dimension), divided into the indicators of *public funds for communications*, *investment on advertising*, *public TV and radio investments*; (vii) Right to Communicate and Participation Perception (7th dimension), divided into the indicators of *general perception of the right to communicate*, and *perception of the civic participation in the media* (Intervezes 2010, 60-94). Taking those dimensions into consideration, the new study took important steps to preserve the equilibrium between prescriptive and descriptive indicators of the right to communicate, nonetheless still lacks the desirable underline theoretical foundation for the process of identification of juridical indicators.

The theory of institutional guarantees described ahead contends that the fully understanding of a given juridical statement is contingent on the surrounding legal context. In other words, the aforementioned attribute of the right to communicate – the freedom of expression, through legal statements pertaining libel, slander, defamatory libel, defamacist, content control, media ownership limitations, to name a few – precisely defines the meaning of the right to communicate as an objective juridical attribute. Although well-done analyses may shed light on many institutional guarantees of a juridical concept, they would gain in precision if they could make use of a traditional juridical theory of interpretation that outlines a method of defining the expected set of attributes that should be expected from a given juridical variable useful for ICT comparative researches.

In 2006, the UNESCO's International Programme for the Development of Communication (IPDC) implemented the first steps, on an international perspective, for generating a model for media development evaluation, followed by a publication (UNESCO 2008) on media development indicators that was endorsed by the IPDC in its 26th Session, in 2008, pursuant to the Action Line 9 of the Plan of Action of the World Summit on the Information Society (WSIS 2003). Those indicators for the evaluation of media development in a comparative perspective were influenced by transnational advocacy networks, such as the CRIS Campaign (Mueller, Kuerbis and Pagé 2007), and cover the main priorities of IPDC, such as the promotion of freedom of expression, establishment of a community media, and human resources development. Five dimensions were proposed at that point with the purpose of outlining indicators for the evaluation of the impacts of media development programs: (i) a system of regulation conducive to freedom of expression, pluralism and diversity of the media; (ii) plurality and diversity of media, a level economic playing field and transparency of ownership; (iii) media as a platform for democratic discourse; (iv) professional capacity building and supporting institutions that underpin freedom of expression, pluralism and diversity; (v) sufficient infrastructural capacity to support independent and pluralistic media. The first dimension deals with the media regulatory framework in connection with political and juridical principles of freedom of expression, pluralism and diversity of media, whereas the remaining dimensions incorporate structural and institutional indicators on access to the media from the perspective of media ownership, professional capacity building and infrastructure availability. By describing the first dimension of indicators, the UNESCO's study notes that the effective protection of the freedom of expression and right to information requires more than a statement in written law. The effectiveness of the enforcement of those rights are as important as the provision itself. Illustratively, when the study devises the indicators of the first dimension – a system of regulation conducive to freedom of expression, pluralism and diversity of the media –, the key indicators of freedom of expression, right to information, editorial independence and journalists' right to protect their sources being guaranteed in law are, in all cases, accompanied by the double check of being respected in practice. By the same token, the key indicator of guarantee and effectiveness of the freedom of expression is portrayed in the UNESCO's study as dependent upon the sub-indicators of (i) national law or constitutional guarantee on freedom of expression, (ii) ratification of relevant treaty obligations, with no significant exemptions, and (iii) public awareness and exercise of its right to free expression, and existence of tools and bodies which guarantee the concrete application of that right. It should be noted that UNESCO's media development indicators bridge rights statements and their concrete application. This perspective of indivisibility between legal provisions and concrete application derives from the set of sub-indicators and means of verification proposed in that study. Accordingly, the sub-indicators of freedom of expression, right to information, editorial independence, and journalists' right to protect their sources are invariably accompanied with the proviso of being respected in practice through the evidence of an independent and functioning judicial system with clear rights of appeal, government commitment to enforce those rights, regulatory bodies and commercial interests prevented from influence editorial content of broadcasters or press, and media organizations or professional associations actively defending the right to protect sources. That connection between the rights' provisions and their concrete application in media development indicators represents

another step forward to the previous structural analyses. Nonetheless, it is not clear in UNESCO's study whether it incorporates a distinction between concrete guarantees and juridical guarantees. That lack of a juridical theoretical background did not prevent UNESCO from enunciate several juridical guarantees as sub-indicators or means of verification, such as: national law or constitutional guarantee on freedom of expression and right to information; jurisdictional and administrative rights of appeal; independent regulatory bodies vested with sufficient powers to accomplish their role; open and participatory allocation of frequencies decision-making processes; transparency of the appointments to the media governing bodies of public service broadcasters; broadcast licensing processes and decisions overseen by an independent regulatory authority; transparent and objective criteria for broadcast license applications set out in law; reasonable defamation laws and other legal restrictions on journalists; public legislative, executive or judicial bodies prevented from filing defamation suits; plaintiff burden of proof in defamation law cases involving the conduct of public officials and other matters of public interest; reasonable laches and prescription for alleged defamation; broadcasters and print publications limits on the requirement to register with or obtain permission from a public body; existence of a widely disseminated plan for spectrum allocation that meets ITU rules and other provisions for public service broadcasting; just and reasonable criteria for spectrum allocation; transparency of broadcast licensing processes and decisions; media workers right to join independent trade unions; professional associations right to file class actions on behalf of the profession and their associates, and so forth. Even lacking an underpinning theory of institutional guarantees, the UNESCO's study embraced a set of indicators relevant for gauging the effectiveness of rights provisions. By pairing political, economic and juridical guarantees, nonetheless, the study is unable to keep a coherent clear border line between them. As a consequence, the right to information sub-indicator of public bodies' release of information does not include writs such as the *habeas data* among its means of verification, which is a key writ for personal information protection in several countries. Another example of the invisibility of juridical indicators in the study can be pointed out in the key indicator of editorial independence. There, the profession legal safeguards can only be surmised from the mean of verification entitled *any law or policy on editorial independence that accords with international standards* (UNESCO 2008, 12). Similarly, the existence of public consultation procedures set forth in a given legal framework is likewise invisible for the key indicator on *participation of the public and civil society organizations in shaping public policy towards the media* (UNESCO 2008, 12). Even if considered the possibility of fulfillment of such indicator with the variable of public consultation legal provision for the approval of sectorial rules, UNESCO's proposed steps difficult that approach in focusing on the following means of verification of the evidence of government commitment to work with civil society to develop law and policy on the media: conferences; seminars; public *fora*; official engagement in debates on the airwaves or in print. The third category used in the UNESCO's study – media as a platform for democratic discourse – suffered like fate as it is almost entirely free from juridical indicators. To mention but one example, the first key indicator of the third category focuses on the pluralism and diversity of public, private and community-based media, but there is not a single word on legal requirements covering language diversity or video programming accessibility for hearing and visual impaired individuals. Two basic conclusions can be derived from the analysis of the UNESCO's study: (i) it represents a step forward in incorporating institutional and political categories in an all-encompassing framework for media development researches traditionally restricted to structural analyses; (ii) the above mentioned missing juridical institutions show that ICT comparative studies would benefit from juridical theories that atomize legal concepts in basic and useful building blocks.

Literature on Perception of ICT Regulation Effectiveness

The Telecom Regulatory Environment (TRE) assessment methodology is described as a tool to evaluate the effectiveness of the telecommunications national regulatory and policy environment. It provides a measurement of stakeholders' perception based on three telecom sub-sectors – mobile, fixed and broadband –, risk determinants – macro-level or country, market or commercial, and regulatory –, and regulatory risk dimensions – market entry, allocation of scarce resources, interconnection, regulation of anti-competitive practices, universal service obligation, tariff regulation, and quality of service. Although the TRE methodology does not deal with institutional dimensions *per se*, but rather with the perception of them, it serves as a beacon for the present article with respect to the underpinning of TRE approach: its importance relies mostly on the recognition of how difficult it is to tackle the regulatory effectiveness directly through its structural and institutional dimensions (Samarajiva, Galpaya and Ratnadiwakara 2007). In other words, an indirect assessment of the regulatory risk through stakeholders' perceptions gains in importance as it has been difficult to devise reliable indicators of ICT comparative research. Among the factors that contribute to this scenario is the absence of commensurable juridical indicators that build the necessary bridge between national legal frameworks from different traditions, and cultural and socio-political backgrounds. This is not to say that perception-lead researches compete with the structural and institutional analyses, since they deal with different aspects of the ICT regulatory phenomenon. What is important to stress at this point is that the justification for the TRE centrality in ICT comparative research for investment purposes brings up one more reason for the present effort of scrutinizing juridical dimensions hidden within institutional indicators usually used in the ICT comparative research.

Literature on Development, ICT, and Regulatory Institutional Environment

Following a previous study on the relation between ICT and economic development in Latin America (Katz 2009), Katz and Avila (2010) analyze the economic impact of telecommunications policy on broadband in Chile, Mexico, and Venezuela, contending, through an econometric approach, that ICT/broadband deployment leads to economic development. That study also proposes that institutional and regulatory framework plays an important role in Chilean, Mexican, and Venezuelan specific behavior of the ICT-development equation. The authors pay attention initially to the causal relation between broadband and economic development, pinpointing several institutional and regulatory variables relevant for the adoption of broadband and other ICT technologies, and end up concluding for the relationship between telecommunications policy and economic development. Openness, stability, and predictability are considered by the study the quintessence of a regulatory environment, which leads to a more efficient functional deployment of enterprises through the validation of several regulatory variables, such as: i) market entry regulation – vertical separation, local loop unbundling, rights of way, numbering scheme, spectrum management; ii) price regulation – interconnection, mobile termination rates, weighted average cost of capital, retail pricing; iii) investment incentive regulation – asymmetry; iv) the national regulatory authority's enforcement process – market analysis ex-ante; v) the application of regulation by the national regulatory authority – technological neutrality, operational conditions, compliance monitoring, and so forth. At the end of the article, some of these variables are gathered under the categories of *institutional framework*, *regulatory framework*, and *non-sector specific policies which can have a spillover effect on the telecommunications sector*. Under the category of institutional framework, the study recognizes the variables of regulatory autonomy or independence, privatization and industrial and/or development plan. Under the category of regulatory framework, it identifies the variables of market entry or level of competition, universal service obligations, and VoIP regulation. Finally, the non-sector specific variables are foreign direct investments restrictions – ownership restrictions over wireless, value-added services and ISPs, and fixe line ownership restrictions –, and convergence restrictions. What strikes most for the purposes of this article is that, although Katz and Avila pay tribute to the institutional dimension of comparative analyses, incorporating traditional institutional variables in the ICT-development equation, such as regulatory autonomy and privatization of state-owned monopolies, they are perceived as univocal concepts. Those concepts would benefit from a better understanding of their juridical dimensions, which may show, for example, that the resulting private corporation from a given privatization process can function in very different ways, according to the ownership arrangements dependent upon extant state shareholders, preferred stock holders, voting stock holders, trade agreements, chain of command, financing agreements, stockholders privileges, such as the right to sell, right to vote, and right to nominate directors, and the like. Differences in the institutional framework of the countries analyzed could be highlighted if those variables were accounted for. On another note, Katz and Avila's study shows the crescent importance of legal concepts in ICT comparative analysis as it proposes that Mexican, Chilean and Venezuelan legal framework could have added consequences to the nowadays differences in their broadband markets. By focusing on legal reforms of Chile, Mexico and Venezuela, that article brings to the institutional and regulatory framework more of the juridical dimension of variables, such as national regulatory authority's enforcement powers, accountability, effectiveness of appeals, market analysis ex-ante, interconnection regulation, among others. The ICT comparative research already delving into the juridical dimension of institutional and regulatory variables will gain precision if they incorporate a hermeneutical methodology appropriate for the interpretation of legal concepts and able to furnish juridical variables to researchers in an organized way; a hermeneutical methodology that devises institutional guarantees as components of a legal concept, paving the way for a more robust ICT comparative institutional and regulatory analysis. The TLICS model described below is an already late addition to the qualitative variables of the literature on ICT and development.

Among recent ICT comparative studies, Wilson's book on information revolution and developing countries emphasizes the limitations of structural analyses that roots its explanations in the 'technology first' perspective; the *technodeterminist paradigm* (Wilson 2006). He argues that the information revolution, as the communication technology becomes a prerequisite for economic success, is as much an institutional and political revolution as it is a technological one. Moreover, he contends that the information revolution occurs within particular structural as well as cultural contexts. The strategic restructuring model (SRS) is proposed by Wilson to address the persistent inadequacy of ICT comparative research focused on the structural side of the information revolution phenomenon, which does not explain the difference in the economic results of ICT deployment in countries with similar economic structures. The answer for that conundrum lies, according to Wilson, on a broader use of the dimensions usually adopted in the comparative research to make sure that the technological and economic aspects will be accompanied by institutional and political factors as independent variables. Based on Schumpeter, Giddens, and Williamson, Wilson makes use of the political economy approach on distribution issues – who wins and who loses in the process of social transformation – to affirm the decisive role of structural, institutional and political limitations in the information revolution process. In accordance with that reasoning, the ICT distribution patterns are mostly guided by structures, but mediated in many respects by institutions, policies and politics. The SRS model starting point is based on the assertion of the intrinsic limitations of the ICT comparative research lack of knowledge on institutional

frameworks and political pacts. Only the lubricated engines of all causal variables – structural, institutional, policy, and politics – can explain the present patterns of technological diffusion, such as the perceived disjuncture in the Brazilian case between structural variables and the effective behavior of ICT distribution in the country. Wilson's crusade for a broader causal variable pool in the ICT comparative research did not though bring to light the juridical dimension in all its potential. Even Wilson's quest for an institutional and political approach of the information revolution made no progress in the definition of commensurable legal concepts for comparative analysis. The only reference of juridical variables in the cited book concerns the courts' role for regulatory governance and the concept of intellectual property as basic structural aspects of the information society. The SRS model zeroes in on calling the attention to policy and politics aspects. It assumes as structural determinants, the social, economic, and political structure, and as institutional variables, the traditional concrete public and private institutions that influence the information sector. Cultural and juridical institutions are important in the model, but are rarely referred to in the book. Most of Wilson's effort to promote the SRS model directed him to focus on proving the importance of what he called information champions. Statutes and administrative rules turned out to be mere products of the *interelite bargaining* on ICT diffusion that preserve the same historical content, or depend upon the renewal of political agreements. The detachment of a statute or administrative rule from their political milieu is not considered as an issue in Wilson's proposal. A symptom of this perception can be illustrated in the author's analysis on the federative variable applied to the Brazilian ICT sector. Lacking a more reliable source of juridical variables, Wilson concludes that the Brazilian federalism resulted in diversity of media operators, whereas what characterizes the Brazilian federalism in the ICT sector is precisely the strong centralized power of the Federal Government that prevents interferences from the states except in the consumer law arena. Therewith, it comes not as a surprise that the SRS model focuses almost exclusively on concrete institutions for ICT diffusion in Brazil – political bodies, enterprises, ministries, agencies, consultants. Wilson's proposal of information revolution as an institutional revolution as well is, so far, the boldest step forward in broadening the causal variables of the information revolution to encompass all non-traditional cultural and institutional variables into the ICT comparative analysis. The protagonism of policy and politics left to the juridical dimension a minor role in the SRS model wherein both legal concepts and state bodies were perceived as a context in which the necessary social capital of the information society is construed. The admission must be made that the SRS model shines among many other similar works as points out the scarcity of institutional and political variables in previous ICT comparative research on information revolution.

TLICS MODEL

Method and Supporting Theories

After asserting the lack of a consistent juridical approach in the literature on ICT comparative research that is able to reveal commensurable legal concepts, the first step to define a model of juridical indicators is to inquire about the method to understand the meaning of juridical institutions. The 20th century presentation of hermeneutics, or theory of interpretation, is the underpinning method for the TLICS model in its prescriptive and methodological dimension developed by Schleiermacher, Dilthey, and Betti (Orminston and Schrifft 1990).

With respect to the prescriptive dimension of hermeneutics, as understanding through the mediation of language (Humboldt 1999), Emilio Betti (1990) devises the process of interpretation as a bridging and reuniting of objectivations of mind – objectivated-meaning contents or meaning-full forms (*sinnhaltige Formen*) – and the inner totality that generated them, and from which they separated, focusing on the movement of reconstruction into the differing subjectivity of an Other. Betti characterizes interpretation as a unity; as the procedure destined to solve the epistemological problem of understanding. As the process of interpretation is an infinite one, expressed in a chain of rebirths of the objectivation of the creative force of an Other, Betti concludes that it is the interpreter's duty to access such meaning-full forms in a non-arbitrary way, following controllable guidelines. This reasoning is, most and foremost, applicable to the juridical objectivated forms as juridical institutions *lato sensu*. The interpretation of a legal concept depends upon a specific method of *re-cognizing* and *re-constructing* the original message, which stimulates the interpreter thought through written meaning-full forms, and mediates the understanding not by transporting an ancient meaning to the present, but precisely by making possible for the interpreter to *re-construct* the experience of an Other in the environment of familiar concepts of the interpreter's own time and experience. The familiarity of the interpreter with the subject to be interpreted is an underpinning characteristic for the prescriptive hermeneutics. Technical-juridical interpretation concerns itself with concept-formation in dogmatics, which paves the way for a more precise definition of a juridical institution when it is considered for interdisciplinary use. In doing so, the interpreter adopts key-concepts or ideal-types that anchor the present reconstruction of meaning to the past production of the meaning-full form. In this article, the category of the *institutional guarantee* (Schmitt 1958) functions as an ideal-type for the process of interpretation of juridical institutions. The main problem faced by the ICT comparative research nowadays is that it uses all-encompassing and not infrequently ambiguous concepts as ideal-types for the interpretation of institutional variables, such as separation of powers, federalism, right to communicate, to name a few. These variables are composed by less ambiguous institutional guarantees that are more likely to preserve their meaning in the long run.

Betti proposes several parameters to guide the process of interpretation. He enunciates four canons: i) the canon of the hermeneutical autonomy of the object, as the meaning to be determined may not be inferred into meaning-full forms in an arbitrary act, but rather it ought to be derived from it, expressed in the maxim *sensus non est inferendus sed efferendus*; ii) the canon of the coherence of meaning or principle of totality, as “the meaning of the whole has to be derived from its individual elements, and an individual element has to be understood by reference to the comprehensive, penetrating whole of which it is a part” (Betti 1990, 165); iii) the canon of actuality of understanding, as it ascribes to the interpreter the task of retrace the creative process, adapting and integrating it into his intellectual horizon within the framework of his own experiences; iv) the canon of the hermeneutical correspondence of meaning or meaning-adequacy in understanding (*Sinnadäquanz des Verstehens*) or harmonization, as it provides that beyond the interpreter’s interest of knowing he should “strive to bring his own lively actuality into the closest harmony with the stimulation that he receives from the object in such a way that the one and the other resonate in a harmonious way” (Betti 1990, 188).

In addition to Betti’s canons, the following conditions enunciated by Madison (1988) as guidelines for the understanding are adopted by the TLICS model: i) interpretation as a process to make possible exact knowledge; ii) a norm-governed way of doing something in distinction from arbitrary, whimsical behavior; iii) coherence, meaning that the interpretation of an author’s work must be coherent in itself; iv) comprehensiveness – in interpreting an author’s thought, one must take account of his thought as a whole; v) penetration – a good interpretation should be penetrating in that it brings out a guiding and underlying intention in the work; vi) thoroughness – a good interpretation must attempt to answer or deals with all the questions; vii) appropriateness – the questions the interpretation deals with must be ones which the text itself raises; viii) contextuality – an author’s work must not be read out of context, without due regard to its historical and cultural context; ix) agreement (1) – an interpretation must agree with what the author actually says, that is one must not say that the real meaning of an author says is something quite other than what he actually does say and intends to say; x) agreement (2) – a given interpretation should normally be in agreement with the traditional and accredited interpretation of an author; xi) suggestiveness – a good understanding will be suggestive or fertile in that it raises questions that stimulate further research and interpretation; xii) potential – the ultimate validation of an interpretation lies in the future.

In the realm of the interpretation process, the exclusive characteristics of constitutional principles demand a specific method of interpretation adopted by the TLICS model to reconstruct their meaning. Konrad Hesse (1999) proposes what he named constitutional interpretation as concretion (*Verfassungsinterpretation als Konkretisierung*) to guide the understanding of fundamental rights, constitutional principles, and state structural principles. According to this method, the understanding of constitutional statements depends on their infinite application on concrete cases and reasoning, which refill the meaning-full forms again in the limits of written statements. Friedrich Müller adds to Hesse’s theory the concept of *decision rule* as a limit for the transformation of meaning throughout the infinite process of concretion (Böckenförde 1993), and as an ideal-type for the process of interpretation. Hesse and Müller recognize the process of interpretation as an ongoing process that bridges legal statements, and historical legal context and adjudication.

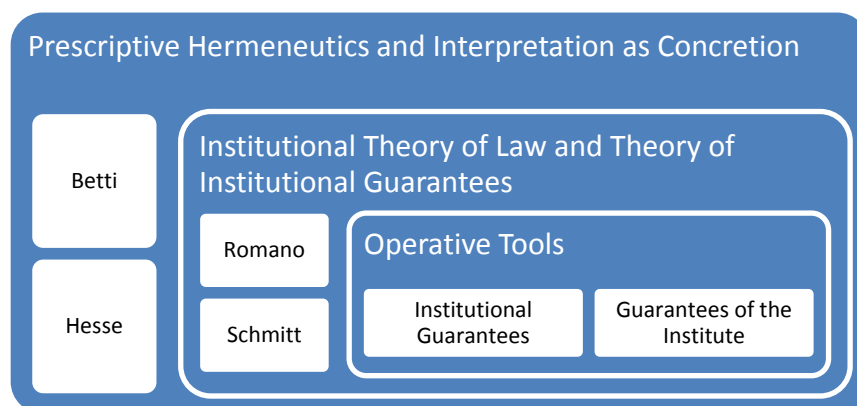
The institutional theory of law plays the role of supporting theory in the TLICS model. According to it, the classical antagonism between individual rights and objective law can be reconvened from an institutional perspective, wherein subjective and objective dimensions of law are integrated in one single phenomenon (Hauriou 1967). The institutional theory of law defines the legal framework as a living and dynamic being that is influenced by and, at the same time, influences each single statement. Legal statements are not considered by the institutional theory of law the personification of the Law, but rather expressions of the legal framework, which is perceived as an institutional body that produces the law. Therefore, the meaning of singular statements depends on the institutional context upon which they rely, in spite of their literal expression. Consonant to the legal pluralism of Romano (1951), the legal framework is a synthesis of institutional aspects, such as the legislature, executive, and judiciary. The meaning of a given legal statement does not derive exclusively from its formal presentation in a written provision, or its subjective moral content, but rather from an institutional rationale of principles (Aranha 1999). The central tenet of the institutional theory of law lies on the assertion that its underpinnings are both subjective and objective (Gallego 1996). Besides that, another consequence of the institutional theory of law is that its plurality of sources mirrors a plurality of ideal-types that reside in the institutional context of law. In order to bring to light those ideal-types, it is imperative to make use of operative tools construed within the institutional theory, such as the tools brought about by the theory of the institutional guarantees.

The theory of the institutional guarantees assumes that basic juridical institutions comprehend a plexus of legal statements that give systemic meaning to the whole (Martins 2007). That theory contends that juridical concepts derive their meaning from a dynamic system of institutional guarantees atomized in the legal framework. Institutional guarantees function as a theoretical framework to clarify the content of juridical concepts by positioning them in the center of a set of legal statements. The operative tools of that theory were developed by Schmitt (1958) under the concepts of institutional guarantees (*institutionelle Garantien*) and guarantees of the institute (*Institutsgarantien*). It is usual though to refer to both concepts by

the term institutional guarantees. The difference between those two species of institutional guarantees lies on the public or private juridical nature of them. The guarantees of the institute are used to refer to institutions whose concept is predominantly subjective, precedent to the state or intrinsic to the human nature, as fundamental rights of the individual, whereas institutional guarantees represent those juridical institutions created by and dependent on the legal framework. From that assumption, they function as operative tools as they separate juridical variables in two different classes of consequences. The meaning of an institutional guarantee will be most completely assured by its positive law description, whereas the meaning of a guarantee of the institute depends most and foremost upon the juridical culture and tradition, and only incidentally on the legal framework definitions. To comprehend a juridical variable through its atomized building blocks depends on that difference, which plays a central role in preventing that a mere written statement be interpreted in the same way in different juridical traditions.

In sum, the TLICS model uses as theory of interpretation the prescriptive (Dilthey 1990, Betti 1990) and concrete (Hesse 1999) hermeneutics, and, as supporting theories, the institutional theory of law (Romano 1951), and the theory of institutional guarantees (Schmitt 1958). As an operative tool for juridical variable correlation, the TLICS model incorporate in the analysis of legal concepts the difference between institutional guarantees and guarantees of the institute that allows the interpreter to build sequences of interrelated variables dependent upon the countries' juridical tradition and culture. A visual depiction of the method, theories, and operative tools of the TLICS model is shown below.

TLICS model: method, theories, and operative tools

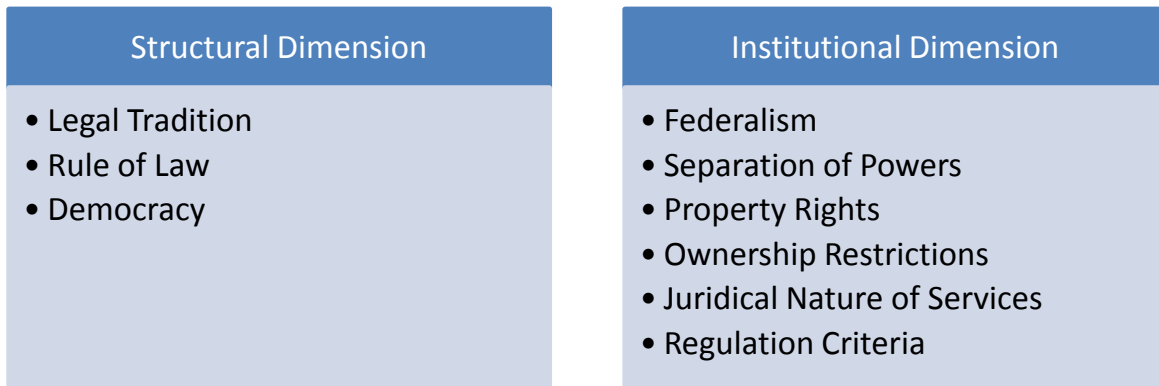


The TLICS model makes use of building blocks of complex juridical attributes that can be studied or separately or as a set of interconnected guarantees. This flexibility of analysis of individual guarantees as well as complex juridical variables makes it useful to cover a variety of landscapes in comparative research from a comparison of specific juridical dimensions between two countries to a broader analysis that deals with more encompassing variables of higher level in the legal framework, such as the fundamental rights and constitutional principles (e.g. right to communicate, rule of law, separation of powers, and federalism).

Next Step: Dimensions and Variables

Listed below is an initial set of structural and institutional legal variables that are usually cited in ICT comparative studies, which would benefit from the TLICS model approach. Many more variables can be easily found in the legal doctrine. Each one deserves an independent study that shows, through reverse engineering of the juridical attribute, what guarantees of public and private ancestry support and identify them. The theory of institutional guarantees shows that, for each variable proposed below, there is a plexus of juridical attributes that give them identity, and function as ideal-types for the comparison between building blocks of a given variable. To analyze them as a whole – legal statements or concepts (meaning-full forms), and its present institutional guarantees (ideal-types) – is essential for commensurability purposes.

Juridical Framework Dimensions

**CONCLUSION**

The literature review shows a recurrent pattern of missing juridical institutions in ICT comparative studies, which would benefit from juridical theories that atomize legal concepts in basic and useful building blocks. This study contends that juridical methodology, theory, and operative tools can help ICT comparative research gain precision in the analysis of legal concepts as a plexus of legal attributes. Only at that point, the ICT comparative research will be fully prepared to tackle the juridical dimension of structural and institutional variables and work with them as commensurable concepts. ICT comparative studies have dealt with all but shadows of legal institutions. To make use of the hermeneutical terminology, those studies have applied the meaning-full form of a juridical variable, without framing them through ideal-types into the national and present context. The proposed TLICS model fixes that missing perspective by focusing on the institutional guarantees of legal concepts and giving a framework where further studies can rely on to identify the plexus of commensurable juridical attributes of any given variable and therewith adding precision to the juridical side of the ICT comparative research.

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