

# International Journal of Human Sciences Research

## CULTURE OF INTELLECTUAL PROPERTY AND INNOVATION: THE PRACTICE OF THEORY AND THE THEORY OF PRACTICE<sup>1</sup>

---

*Alejandro Knaesel Arrabal*

PhD in Public Law from the Postgraduate Program in Law at: Universidade do Vale dos Sinos – UNISINOS. Master in Legal Sciences at: ``Universidade do Vale do Itajaí`` – UNIVALI. Specialist in Administrative Law from: Universidade Regional de Blumenau – FURB. Professor and researcher of the Master's Programs in Law (PPGD) and Administration (PPGAd) at FURB. Leader of the Law, Technology and Innovation research group – DTIn (CNPQ-FURB). Member of the research groups Constitutionalism, Cooperation and Internationalization - CONSTINTER (CNPq-FURB) and State, Society and Contemporary Legal Relations (CNPq-FURB), with studies in Intellectual Property law, Technological development and Innovation. Member of Agit - Technological Innovation Agency of: Universidade Regional de Blumenau - FURB. <https://orcid.org/0000-0002-0927-6957>

All content in this magazine is licensed under a Creative Commons Attribution License. Attribution-Non-Commercial-Non-Derivatives 4.0 International (CC BY-NC-ND 4.0).



---

1. This essay is a revised and expanded version of the expanded summary published in the Proceedings of the 1st Brazilian Interdisciplinary Congress on Science and Technology (2020), the result of studies and activities carried out within the scope of the Technological Innovation Agency da: Fundação Universidade Regional de Blumenau - FURB.

### ***Vinicyus Rodolfo Wiggers***

CNPq Productivity and Innovative Extension Scholarship - Level 2. PhD in Chemical Engineering from: Universidade Estadual de Campinas. Effective professor at: Universidade Regional de Blumenau - FURB and permanent member of the Master's Program in Chemical Engineering at the same institution. Member of the research group Law, Technology and Innovation – DTIn (CNPQ-FURB). He has also served as coordinator of the FURB Technological Innovation Agency (AGIT) since 2016  
<https://orcid.org/0000-0003-2273-8025>

### ***Otávio Henrique Baumgarten Arrabal***

Graduating in Law by: Fundação Universidade Regional de Blumenau - FURB. Member of the research group Law, Technology and Innovation – DTIn (CNPQ-FURB). Scholarship from the Foundation's Technological Innovation Agency: ``Universidade Regional de Blumenau``  
<https://orcid.org/0000-0003-4960-1002>

### ***Ana Paula Colombo***

Master in Intellectual Property and Technology Transfer for Innovation by: ``Universidade Federal de Santa Catarina`` (2019). Graduated in Law by: ``Fundação Universidade Regional de Blumenau`` (2014). Member of the research group Law, Technology and Innovation – DTIn (CNPQ-FURB). Intellectual Property Coordinator at the Innovation Agency of: Universidade Regional de Blumenau - FURB  
<https://orcid.org/0000-0002-9087-3555>

### ***Nayara Becker***

PhD in Environmental Engineering from the Postgraduate Program in Environmental Engineering at: ``Fundação Universidade Regional de Blumenau`` (2022). Master in Environmental Engineering by: Fundação Universidade Regional de Blumenau - FURB (2018). Graduated in Chemical Engineering by: Fundação Universidade Regional de Blumenau - FURB (2015). She has been part of the FURB Technological Innovation Agency (AGIT) team since 2022  
<https://orcid.org/0000-0001-6625-7309>

### ***Rodrigo dos Santos Cardoso***

PhD in Accounting Sciences and Administration from: ``Fundação Universidade Regional de Blumenau`` (2012). Master in Administration by: Fundação Universidade Regional de Blumenau (2006). Graduated in Administration from: Universidade Federal de Santa Catarina (2014). Graduated in Chemical Engineering from: Universidade Federal de Santa Catarina (1994) Member of the research group Law, Technology and Innovation – DTIn (CNPQ-FURB). Professor at: Fundação Universidade Regional de Blumenau  
<https://orcid.org/0000-0002-3376-9567>

### ***Caio Felipe Souza Jacinto***

Master's student in Chemical Engineering at: Fundação Universidade Regional de Blumenau (FURB). CNPq scholarship holder. Member of the FURB Technological Innovation Agency (AGIT)  
<https://orcid.org/0009-0007-8089-4620>

### ***Erly Ian da Silva Santos***

Master in Chemical Engineering from: Fundação Universidade Regional de Blumenau. Postgraduated (lato sensu) in Occupational Safety and Environmental Management. Mechanical Engineer by: Centro Universitário do Norte - UNINORTE. Member of the FURB Technological Innovation Agency (AGIT) from 2020 to 2022  
<https://orcid.org/0000-0002-5445-9234>

**Abstract:** Considering the national standards and guidelines for promoting Innovation, this study observes the experiences of the Technological Innovation Agency (AGIT) of ``Universidade Regional de Blumenau``, in order to characterize the theoretical-practical assumptions related to the Culture of Intellectual Property and Innovation at the university level.

**Keywords:** Intellectual Property; Innovation; University; Culture.

## **INTRODUCTION**

One of the legacies of Cartesian scientific thought is the separation between Theory and Practice. However, epistemologies developed in the 20th century provided conditions to understand the interconstitutive character of these concepts. From the philosophy of Edgar Morin (2011) to the poetry of Fernando Pessoa (2007, p. 143), few will deny that “all theory must be created in order to be put into practice, and all practice must obey a theory. Only superficial minds disconnect theory from practice, not realizing that theory is nothing but a theory of practice, and practice is nothing but the practice of a theory.”

Based on this premise, we seek here to characterize the theoretical-practical assumptions related to the Culture of Intellectual Property and Innovation at the university level, based on the recognition of the practices and guidelines adopted by the Technological Innovation Agency of ``Universidade Regional de Blumenau``, in the context of its internal and external relations. As established by the national regulatory framework (BRASIL, Law, number: 10.973/04), the NITs are responsible for “ensure the maintenance of the institutional policy to encourage the protection of creations” and “evaluate and classify the results resulting from research activities and projects” developed in Universities.

The results of the study preliminarily point to the characterization of the Culture of Intellectual Property and Innovation within the scope of Universities based on the following factors: a) constant training aimed at disseminating the meaning and scope of IP rights, its role for the academic community and for organizations, as well as their relevance in defining new research; b) promotion of spaces for sharing experiences, ideas and demands such as fairs, technical visits, competitions, among others; c) internal management of IP titles in relation to formal procedures with the National Institute of Industrial Property; d) transparency and horizontality in negotiations regarding ownership of IP rights and sharing of results.

## **MATERIAL AND METHODS**

Under a multidisciplinary perspective, the study integrates a bibliographic, documentary and normative review on the concepts of Culture, Intellectual Property and Innovation. Action research (Trip, 2005) represents the fundamental method of approach to the study, given that the object of investigation is the result of the work of the researchers involved within the scope of the FURB Technological Innovation Agency.

All citations and references in this article, when foreign, were translated from their original language into Brazilian Portuguese. The authors also declare that no generative artificial intelligence tools were used to write the text.

## **RESULTS AND DISCUSSION**

Culture represents the broadest institutional manifestation of society, operated through the identity of habitual actions. For Berger and Luckmann (2014). Habit corresponds to the reiteration of practices and discourses that generate stability and offer the conditions for institutionalization.

North (2018, p. 13) states that “institutions are the rules of the game in a society or, in a more formal definition, the man-made restrictions that shape human interaction”. In this sense, Culture is often characterized as a repertoire of beliefs, practices and knowledge recognized as necessary, important and desired, and therefore accepted by members of a community.

For a Culture to be fruitful in relation to the values it aspires to consolidate, it is essential that the communication established between the actors involved provides conditions for the construction of identities and respect for differences.

Among other aspects, building identities for a culture of Intellectual Property and Innovation presupposes understanding the main concepts and rules involved in a contextualized and meaningful way. In other words, it is essential that the subject makes sense for the reality of each person and organization that is part of a given ecosystem. On this issue, it is up to the Technological Innovation Centers (NITs) and their respective Science and Technology Institutions (ICTs) to act in the formulation of coherent and effective discourses on Intellectual Property and Innovation. To this end, there are several aspects that must be observed, among which the following stand out:

a) Deconstruction of the assumption of the Specialty: admitting (from the outset) that the discipline of Intellectual Property Rights is a domain restricted to specialists represents a barrier that generates distance on the topic, as well as strengthening the reproduction of discourses marked by legal jargon and/ or formulated based on the literal nature of the law, without taking into account the plural nature of the expected languages involved. It is true that the discipline of Intellectual Property Rights (as well as

any other topic of a normative nature) has specificities that require careful observation and study. But this does not prevent the sharing of knowledge and its contextualized production, providing various economic actors with the construction and appreciation of rights.

b) Misinformation based on excesses: in general, lack of knowledge on any topic generates insecurity, opening the doors to misinformation. In the field of Intellectual Property, the lack of contextualized basic knowledge on the subject allows absolutely exceptional facts, often marked by equivocal approaches, to become a reference for the social imagination. This results in a vicious cycle that feeds extremist positions, whether denying the importance of Intellectual Property Rights or demanding their excessive universal application. In the logic of extremes, either individual rights are vulgarized, or the Public Interest is made precarious, as Ascensão (2002) has already observed.

In the context of market society, the guarantee of exclusivity over creations and other intangible assets is normally accepted as a vector of competitiveness, necessary to promote industry and consequent economic and social development.

However, Intellectual Property (IP) Culture is not limited to the recognition of exclusivity and/or monopoly over intangible assets and its consequent asset discipline. Dobrusin, Pursley and Aleksynas (2023, n. p., free translation) point out some practical questions, in terms of IP culture in business organizations, such as: “what types of innovations does the organization produce? How does the organization ‘win’ the market? Are there internal methods or pathways for protecting the organization’s IP? What is spent on IP and how does this reflect on the

organization’s strategy? Are new ideas from all parts (members) of the organization being taken into consideration?”

There are other aspects that must be considered, especially in the face of complex arrangements of creative production (artistic and/or technical), which deserve attention even when recognizing authorship. In this sense(s), from the various points of view raised, Rhodes (2012, n. p., free translation) notes that:

In knowledge and innovation systems, there are good reasons for universities to play a distinct and complementary role to that of commercial companies. There is always likely to be some research, especially basic research and research that produces public goods, that will not be met by market incentives, and public funding of university research is a good way to ensure that this research is carried out. [...] The preservation of this differentiated role of universities requires that they can continue to operate under incentive regimes different from those of the market.

These are issues that find fertile soil within the scope of teaching, research and extension activities of Universities and that require adequate clarification, in addition to what is structurally established by Copyright Laws (BRAZIL, Law, number: 9.610/98), Industrial Property (BRASIL, Law, number: 9.279/96) and other related matters.

Respect for differences is an important factor in building a Culture of Intellectual Property and Innovation. It is about recognizing that people and organizations within the same ecosystem are guided by different expectations and world views. These results, for example, in the observation that certain practices, procedures and execution times adopted by Universities and Companies are not the same. But this must not be seen as an obstacle to the development of agreements that aim at common or reciprocal objectives,

especially with regard to the definition of Intellectual Property rights.

Clear communication, transparency and willingness to change are key aspects. In this sense, universities can learn from companies and companies from universities, sharing knowledge and resources.

With regard to contractual instruments and agreements, it is important that they are not treated solely as formal resources. From elaboration to circulation, they represent relevant means of cultural production, as they can incorporate information and design suitable for clarifying aspects related to Intellectual Rights and other related issues.

In the context of ``Universidade Regional de Blumenau``, the Technological Innovation Agency, qualified as a Technological Innovation Center under current legislation, operates in the promotion and management of innovation activities, protection and dissemination of intellectual property culture and technology transfer. Over the last few years, its actions have contributed to creating the necessary conditions for the development of the innovative entrepreneurship ecosystem in Blumenau and the region, as well as in the State of Santa Catarina. The Center was formally established by the Innovation Policy of ``Universidade de Blumenau`` in 2012, updated by Resolution, number: 071/2018, of September 4, 2018.

With the purpose of combining scientific and technological knowledge with market demands and the promotion of innovative entrepreneurship, the Agency held the 1st Blumenau Innovation and Entrepreneurship Fair in 2019, an event that stood out for its representativeness and synergistic quality, in the sense of integrate various actors from the regional and state innovation ecosystem, as well as providing an opportunity to bring knowledge produced in elementary, secondary and university education closer to the

community. Due to the Covid-19 pandemic, the second edition of the fair took place in 2021 in a hybrid format, incorporating the experience obtained with the online fairs held at the FURB Technological Sciences Center in 2020 (Arrabal et al., 2022).

The third and fourth editions of the Innovation and Entrepreneurship Fair enabled registrations from students linked to higher, secondary or primary education ICTs, public or private, based in the fourteen municipalities that make up the Association of Municipalities of the European Valley – AMVE (Wednesday, 2023)

Another strategic aspect consists of internalizing the necessary skills to establish a direct relationship with the National Institute of Industrial Property – INPI, in relation to procedures for claiming Intellectual Property titles. This initiative resulted in faster internal processing of administrative processes and reduced operational costs.

The fair, in addition to training through courses and lectures, as well as the internalization of procedures with the INPI, had the impact of speeding up internal processing and increasing the number of intangible assets resulting from student and teacher projects. This effect can be observed in the annual growth of IP assets as shown in Figure 1.

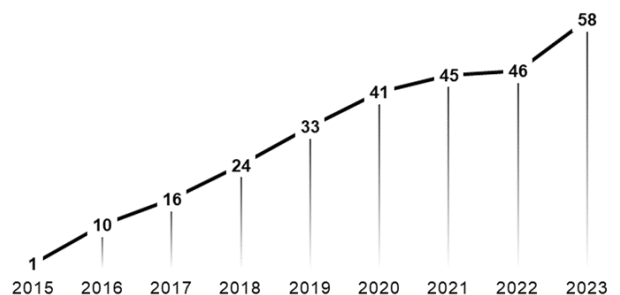


Figure 1: Total (annual accumulated) assets claimed at INPI

Source: Prepared by the Authors



The internalization of operational issues related to IP titles also provided the opportunity for a more effective and assertive relationship between the Agency and University researchers (professors and undergraduate and postgraduate students).

As a result, group dynamics were implemented to verify patentability requirements as well as the drafting of patent applications, which resulted in qualitatively superior technical products, in addition to encouraging direct engagement and qualification of the researchers involved, encouraging innovation.

Qualitatively superior technical products have been reflected in the number of titles granted by the Federal Authority, especially in relation to patents. In this context, meeting INPI's requirements, in the analysis of patentability requirements, became effective, given the interaction established with researchers during and after the technical meetings held to instruct the writing of applications. It must be noted that the rapprochement with students and teachers, derived from this dynamic, has provided conditions for Agit to act strategically in order to facilitate the transfer of the technologies involved to the market.

## **FINAL CONSIDERATIONS**

The results presented here indicate that the Culture of Intellectual Property and Innovation at the University level, together with the Technological Innovation Centers, find favorable conditions for the institutionalization of knowledge and practices relevant to social and economic development, as long as there is the internalization of capable skills to radiate knowledge and practices within the university and beyond.

The characterization of the Culture of Intellectual Property and Innovation presupposes several fronts of action that integrate, from the offering of communications and periodic courses, to the structuring of formal and informal norms based on clear communication, transparency, collaboration and horizontality along with academic practices and relationships contractual.

## **THANKS**

The authors would like to thank `` Fundação Universidade Regional de Blumenau'', the Santa Catarina State Research and Innovation Support Foundation – FAPESC 2022 TR 002035 and the National Council for Scientific and Technological Development - CNPq 304560/2020-0.

## REFERENCES

4ª FEIRA DE INOVAÇÃO E EMPREENDEDORISMO: Edição Vale Europeu. Regulamento, 2023. Disponível em: <http://www.furb.br/euqueroinnovar>. Acesso em: 12 nov. 2023.

ARRABAL, Alejandro Knaesel; CARDOSO, Rodrigo S.; WIGGERS, Vinicyus R.; COLOMBO, Ana P. Transformação digital em feiras tecnológicas universitárias. **RAM – Revista de Administração Mackenzie**, n. 23, v. 5, 2022. Disponível em: <https://doi.org/10.1590/1678-6971/eRAMR220093.pt>. Acesso em: 12 nov. 2023.

ASCENSÃO, José Oliveira. Direito intelectual, exclusivo e liberdade. **Revista da Escola da Magistratura Federal da 5ª Região**, Recife, n. 3, p. 125–145, mar. 2002. Disponível em: <https://revista.trf5.jus.br/index.php/esmafe/article/view/127>. Acesso em: 12 nov. 2023.

BERGER, Peter L.; LUCKMANN, Thomas. **A construção social da realidade**. 36. ed. Petrópolis: Vozes, 2014.

BRASIL. **Lei nº. 9.610, de 19 de fevereiro de 1998**. Altera, atualiza e consolida a legislação sobre direitos autorais e dá outras providências. Disponível em: [http://www.planalto.gov.br/ccivil\\_03/leis/19610.htm](http://www.planalto.gov.br/ccivil_03/leis/19610.htm). Acesso em: 20 jun. 2020.

BRASIL. **Law, number: 10.973, de 2 de dezembro de 2004**. Dispõe sobre incentivos à inovação e à pesquisa científica e tecnológica no ambiente produtivo e dá outras providências. Disponível em: [http://www.planalto.gov.br/ccivil\\_03/\\_ato2004-2006/2004/lei/110.973.htm](http://www.planalto.gov.br/ccivil_03/_ato2004-2006/2004/lei/110.973.htm). Acesso em: 12 nov. 2023.

BRASIL. **Law, number: 9.279 de 14 de maio de 1996**. Regula direitos e obrigações relativos à propriedade industrial. Disponível em: [http://www.planalto.gov.br/ccivil\\_03/Leis/L9279.htm](http://www.planalto.gov.br/ccivil_03/Leis/L9279.htm). Acesso em: 12 nov. 2023.

DOBRUSIN, Eric; PURSLEY, Kristen; ALEKSYNAS, Daniel. **Intellectual property culture: strategy and compliance**. Nova Iorque: LexisNexis Matthew Bender, 2023.

FURB. **Resolução 71/2018**. Disponível em: [http://www.furb.br/web/upl/publicacoes\\_legais/201809051516440.071-2018%20RESOLU%C7%C3O.pdf](http://www.furb.br/web/upl/publicacoes_legais/201809051516440.071-2018%20RESOLU%C7%C3O.pdf). Acesso em: 12 nov. 2023.

MORIN, Edgar. **Introdução ao pensamento complexo**. 4. ed. Tradução Eliane Lisboa. Porto Alegre: Sulina, 2011.

NORTH, Douglass C. **Instituições, mudança institucional e desempenho econômico**. São Paulo: Três Estrelas, 2018.

PESSOA, Fernando. **A economia em Pessoa: verbetes contemporâneos e ensaios empresariais do poeta**. Organização, introdução e notas de Gustavo H. B. Franco. 2. ed. Rio de Janeiro: Zahar, 2007.

RHODES, Catherine. University patenting and the advancement of knowledge. In: RICHARDS, Graham. **University intellectual property: a source of finance and impact**. Reino Unido: Harriman House, 2012.

TRIP, David. **Pesquisa-ação: uma introdução metodológica**. Educação e Pesquisa, São Paulo, v. 31, n. 3, p. 443-466, set./dez. 2005. Disponível em: <https://www.scielo.br/pdf/ep/v31n3/a09v31n3.pdf>. Acesso em: 12 nov. 2023.