

THE STUDY OF THE TERRITORY AND ITS RESOURCES AMONG SCIENTIFIC AND TECHNICAL INFORMATIONAL: INFORMATION TECHNOLOGIES IN RIO GRANDE DO SUL, BRAZIL

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Abstract – This work aims to analyze the spatial dispersion of information technologies and communication in the service sector between the cities of Rio Grande do Sul, according to CNAE 2.0 and a secondary objective to characterize the profile of the professionals of this activity. The methodology used is quantitative and the data is subtracted from the Annual Social Information. At first looking to make a theoretical review of the main approaches to the topic; the second time discussing the Information and Technology-It and the professional profile and finally got the final considerations on the subject.

Keywords – Social Information, information technologies, communication

I. INTRODUCTION

The dialectical process between humanity and nature, mediated by the capitalist economy, has shaped our materiality, building a world full of inequalities that hinder, increasingly, the inclusion of groups, countries, counties, states. Many authors have announced that we live in a new time and several titles have been assigned, but the name of technical-scientific-informational milieu seems to translate well this period. This is a new moment in the global economy and, more than ever, there is an urgent need to analyze the Brazil, to understand how the country is being used by hegemonic actors and as the territory is being filled by technical objects, revealing the existence of different techniques densities.

The scientific understanding of this process is not easy; methodological strategies are bound to grasp the complexity of this dynamic. The path chosen here is the study of economic activities involving information technology communication-Ti, considered as services according to the National Classification of Economic Activities-CNAE 2000. They, like work in networks and can operate at a distance, can (re) structure the territory.

Thus, this study aims to analyze the spatial dispersion of information and communication technologies in the service sector between the cities of Rio Grande do Sul, according to CNAE 2.0 and a secondary objective to characterize the profile of the professionals of this activity.

II. THEORETICAL CONSIDERATIONS

Digital technologies can be conceptualized as the ability to transform information in a binary system: integers, zero and 1. With this possibility has generated a set of technologies that have been called new information technologies and communication - nits. Technological developments arising

from this possibility are seen in several areas, the digital system is in wristwatches or in thermometers, as well as in operating rooms, to the point of speaking in literacy and digital inclusion. strategic research such as nanotechnology, today depend on electron microscopes, which enable view details of nanotechnological samples that can be up to 70 cubic micrometers. In telemedicine, Ti allow you to attach rays to electronic medical records of patients.

The examples make it clear that digital is a language that is contained in most of the objects that circulate in the daily lives of citizens, as part of the research, society and the economy. And indeed these activities involve extraordinary capital, which allows us to say that the command of these technologies makes their producers, or those who have control of its production of hegemonic actors. As such, every time they seek to shape society and territories to maintain hegemony.

Attempts to understand the scenario that fits into the IT and its geographical repercussions passes through reflection pointing at the Milton Santos with the concepts of technical-scientific-informational environment.

The medium scientific-technical informational approached by Santos (1997) as a means hosts a number of fixed and streams that conform a sociospatial development complex. The author announces that this means "a period of interaction of science and technology" (1997, p. 190) and in which "the spaces re-qualified serve primarily the interests of hegemonic actors of economy, culture and politics and are incorporated fully to the new global standard. "(1997, p.190). In this environment, the area of interest of these hegemonic actors, goes through those that concentrate the conditions for rapid reproduction of capital, creating areas of capital interest and other becoming appendages, hence the expression used territory.

The territory used is something created by men and therefore full of political and economic content. This concept is expressed important elements to design the economic

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outlook of Santos, work and trade is a happening that occurs in the territory, instead, pervade economic. That territory is governed by money, it follows the idea of territory used by capital, but not capital as abstract entity that governed by men who follow the capitalist logic and governing territory. Can this bias point out that the concept of territory is conceived as a result of the actions of hegemonic groups, that being governed by money, build territories. From this angle, it is worth mentioning here the Saints own (1994, p.16), expressing that "the territory used are synonymous objects and actions of human space inhabited. Even the fluidity in the service of competitiveness, which now governs economic relations, goes around. "

In this context, the territory focus of attention is the one designed as a product of the hegemonic social groups, and is analyzed here as it is appropriate and organized as a resource for these actors to meet their interests.

The discussion on the technical scientific-informational milieu was a great contribution of Santos for understanding the transformations elapsed from the global capitalist development. He draws attention to the organization of the territory (the use of the territory by hegemonic actors) to be informational and development of technology and its relationship to science in the process of artificiality of things and men. In work with Silveira and Santos, they show that "the territory gained new content and impose new behaviours, thanks to the enormous possibilities of production and, above all, the movement of raw materials, products, money, ideas and information, orders and men. " (Santos and Silveira, 2001, p. 53). In this same study, they advertise a concentration of these new content in the south and southeast, indicating that even with new content, the concentration would continue. Santos does not focus exclusively on you, but his work points to importance in studying it. This concentration is not positive because it concentrates power, work and wealth in a few places, leaving others left without possibilities of developing their economies.

III. METHODOLOGY

Research in this first phase is exploratory and quantitative. Works with the Ministry of the database of Labor and Employment-MTE, to Rio Grande do Sul.

IV. RESULTADOS PRELIMINARES

It is always a challenge present population profiles, because in general they are statistics that we use a series of tables and charts to explain them. But just as they clarify the explanation, they also make it cumbersome and sometimes confusing, like in a monotonous succession of information. However, if we do not present the monotonous succession of information devalue details, clues that the data present us. Accordingly, the option here and the presentation of graphs and tables and charts.

a) Evolution of jobs

The jobs in Ti have evolved rapidly between 2008 and 2015 there was an increase of 92% of the gauchos bonds in RS. In seven years there has been a significant increase, highlighting the importance of the sector

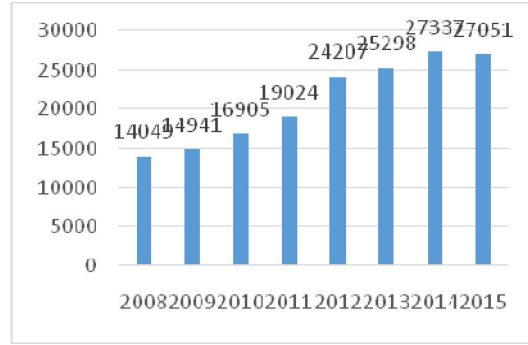


Figure 1. Evolution of employment relationships, 2008-2015. Source: MTE / RAIS, 2015.

a) Sexual Structure

The workers profile in information technology shows employment relationships with male predominance, that virtually all activities. This predominance just does not happen in the activity 6, where females have greater weight. This data is important for reflection, since the activities of Ti do not involve force and being new are not born with male activity stigma so could be also be developed by the two sexes.

Table 1 Structural Sex. Source: Rais / MTE 2015.

CNAE 2.0 Classe	Man	Woman	Total
1.Developing custom computer programs.	2680	1085	3765
2.Development and licensing of customizable computer programs.	2081	1067	3148
3.Development and licensing of non-customizable computer programs.	2649	1191	3840
4.Consulting in information technology	2298	1209	3507
5.Technical support, maintenance and other services in information technology.	3966	1929	5895
6.Data processing, application service providers and hosting services on the Internet.	2257	2883	5140
7.Portals, content and other information services on the internet providers.	499	463	962
8.Other activities to provide information services not otherwise specified.	443	351	794
Total	16873	10178	27051

c) Agestructureec

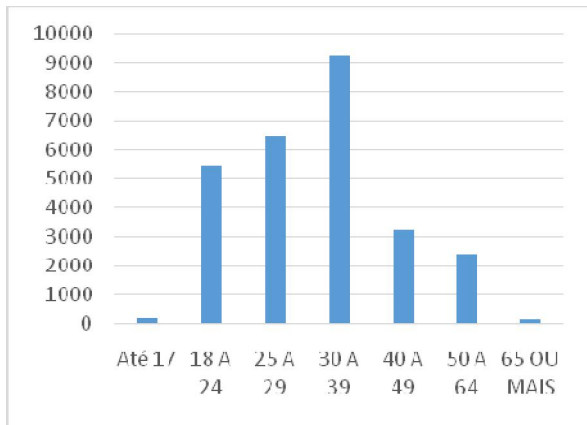


Figure 2. Age range of IT services activities. Source: Rais / MTE 2015

The age of these groups is between 18 to 39 years, especially the group from 30 to 39 years. They are young adults, giving the Ti the title of contemporary profession. Comparing age groups among the activities that make up the group of Ti, there was no differentiation

d) Education

The education of these workers is between secondary education and higher, so high, characterizing as the professions of the future with high qualification and using more mental activity and decreased strength in their realization.

Analyzing education data power would expect high wages due to the importance of this sector in the economy and its high school, but analyzing the data, it appears that most of these workers is to pay between 1 and 2 minimum wages . Wages above 4 minimum wages is found in activities involving production with higher value added, but this figure is understated.

e) Rendimento Médio

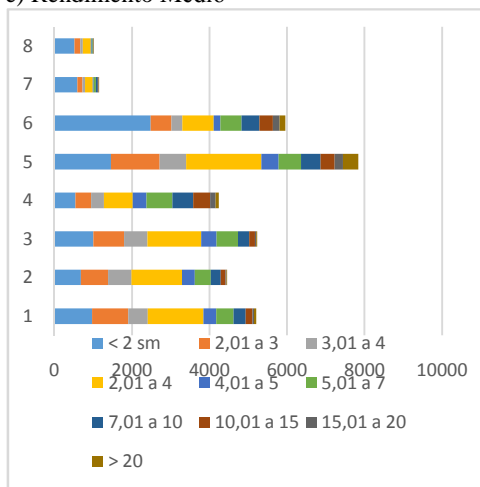


Figure 3. Minimum wage average in IT. Source: Rais / MTE 2015

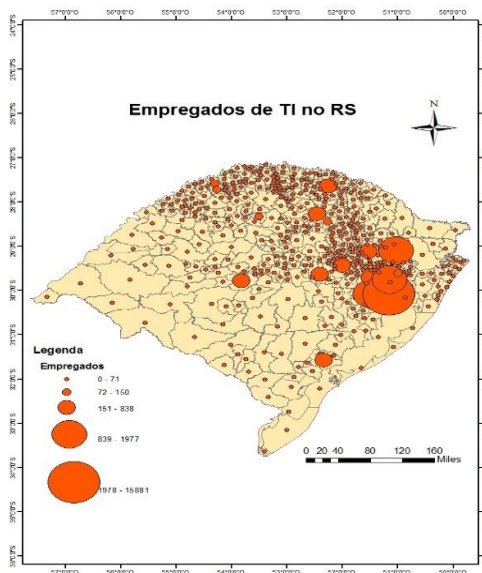
The graph shows that the predominant average income between activities (numbered as per table 1) is 2 to 4 times the minimum wage, who in 2015 was equivalent to 788 reais.

The analysis of statistical data gives us a profile of professionals in You. They are men, young, earn little and have high education. Women are in lower added value and where earnings are lower activities.

g) Territorial distribution

Looking at the map it appears that the activities of Ti are present throughout RS, but in different intensities, which means that there is poor distribution of employment relationships between the municipalities of RS. The map spheres reveal that these employment relationships are concentrated in certain portions of the state, especially in the metropolitan region of Porto Alegre-MRPA. Outside the MRPA, are featured the cities of Caxias do Sul, Pelotas and Passo Fundo. So the map shows a concentration in MRPA, and to achieve even more this statement, one can resort to the following information: 10 municipalities home to 80% of employment relationships in you in RS, ie have more jobs in these activities .And these municipalities alone are not part of the MRPA Caxias do Sul municipalities, Pelotas and Passo Fundo.

Analyzing the distribution of employment relationships in Rio Grande do Sul for each activity, it is observed that still remains the predominance of employment relationships in MRPA and in some non-metropolitan centers like Caxias do Sul, Passo Fundo, Pelotas. Regarding the profile of the professionals working with Ti there is a high level of education, typical of the information society, but not always with the expected wage standard, since wages are shy. The population is adult-young, natural for an activity that is new, however, strangely masculine. From the point of view of territorial analysis, there has been a concentration of technological and innovative activities in the MRPA and a few medium-sized centers, maintaining the pattern of consolidation of capital in the old settlements, allowing the thesis concentrated concentration



Map 1. Distribuição de employment relationships in Ti services in RS, 2015. Source: MTE / RAIS, 2015. Elaboration Kethelyn G. P. de Oliveira.

V. FINAL CONSIDERATIONS

We began this work pointing the dialectical relationship between man and nature in the logic of capital that will build a world and building. It is geography responsibility to understand these movements and worry about their spatial implications. Comes this concern in discussing the nuances of this medium technical scientific-informational, from the cut of You. And for this task was rescued the concept of territory used, understanding as a resource for the hegemonic actors use with a view to expansion of capital . It was shown that the area used in the case of Ti is the MRPA, which houses the necessary conditions for this activity is installed. Beyond it, a few other municipalities serve as use of input, among them is Pelotas, Caxias do Sul and Passo Fundo. And this we can say that even activities with small establishments and which can operate at distance are located in heavily urbanized areas and intensely invaded technical objects.

The reasons may just be the profile of this population, which is made up of young adults and have higher education. This trend deserves explanation, but can be an important element to clarify this situation.

And it must be emphasized here the importance of analyzing the profile of these professionals are called employment relationships by Rais. The type of professional in this case points to the possible reasons for the location of the enterprises of Ti, but also to the type of worker and reward profile. The data show us a slight gender inequality, women work in professions that involve less complex and are not possessed of higher wages, of course that deserves further study, but are alert. About the data in wages have a painful reality, they are highly valued for scarce professions, as are configured as a vital organ of the technical-scientific-informational environment, and further, that have a high level of education.

Finally, what about the organization of the territory, it appears to contain new assumption in old ways, and although the results seem to be known, should be undertaken increasingly studies to reveal this reality and warn society about socio-spatial development awaits us.

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