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## START-UPS BUSINESSES AND INCUBATORS IN THE CITY OF FLORIANOPOLIS, SANTA CATARINA, BRAZIL: TOWARDS INNOVATIVE LABOR ROUTINES

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### Abstract

*In Florianopolis, capital of Santa Catarina, Brazil, one comes across an impressive scenario: 3 major incubators have changed the cities gross income in the last 15 years, now surpassing tourism and public services as its major source of income. Since 2006, it has been registered an increase in the national IT market of about 20% annually; summing up to 22 billion reais in 2010 (ROSELINO,2006). According to Guimarães (2010), they play a specific role related to catching-up innovation processes: better use of science-based knowledge which would be spilled off of universities, laboratories and big companies; at the same time, it is worth noting that better organizational adjustments to market transformations are verified. Nevertheless, it stands out that high costs inhibit radical innovations from start-ups and small companies (LUNDVALL, 1992; POWELL, 1998). As a result, explaining such findings as specificities of organizational routines and social pattern of innovation that evolve over time means that, if they are not fully grasped and institutionalized in actively functional local environments, they might lose momentum and diminish startups' market prospects. For this article, we investigated the social relations which sustain start-ups' entrances in the IT market, focusing on how entrepreneurs implement business strategies and improvements in organizational routines. As such, to understand the social configuration of the IT market we should bear in mind that innovative routines are cross-referenced in local institutions, its history and, mostly likely, how business is daily done. (Fligstein,2001). It was expected that their relative success, after being incubated, would support them with new managerial expertise as well as with social networking much needed to transfer and coordinate technical and relational expertise that are learned through interaction on a local scale aiming at a global picture. We had access to Midi Incubator, in Florianópolis, holding 15 start-up business, which we interviewed 12 of them.*

Keywords: small business; incubators; Brazil

### 1. PRESENTATION

When we follow the rising performance of small and middle-sized enterprises (SMEs) in the Brazilian market of IT, we start having access to the reasons for their recent dynamism, as they are supported by regional and local patterns of innovation that become increasingly sophisticated. Examples of this interest are studies describing the capacity of these companies to

acquire patents, internationalize and develop new institutional practices and work relationships that can lead to increase in productivity in the sector (GUIMARÃES, 2010). We can observe that, to a large extent, the experiences accumulated by these small companies, workers and other actors (universities, business incubators, governmental authorities) may favor exchange of information and cooperation, which, facilitating greater interaction, would drive them to the thresholds of technological development.

Within this context, we find the IT market of Santa Catarina state and its recent and vigorous growth. According to ABES – Brazilian Association of Software Enterprises - (2012), the total revenues of the IT sector in the country, in 2012, was of 22 billion. Data shows that small businesses predominate, reaching over 90% of the total number of enterprises for the sector, however, only 35 % of the revenues. Therefore, the nature of this unequal profit distribution called our attention. For the region of Santa Catarina, Florianópolis, Joinville and Blumenau cities are at top regarding businesses in the IT sector, reaching an estimate of 1.5 billion Reals in revenues.

Nowadays, there are three technology incubators in Florianópolis: Sappiens Park, Celta and Midi Tecnológico which comprise what is known as a technology hub. Our studies focused on the last one – Midi Tecnológico. These small companies have changed the economy in the city and led us to evaluate the recent changes in the IT market in the region and trace the opportunities that are opening for them.

It is a highly dynamic and flexible market, where workers and entrepreneurs are asked to present profiles of flexibility, innovation and creativity, either as requirement for their professionals' employability<sup>1</sup> or for the virtuous insertion of their small companies in the market of IT. Therefore, their work routines are challenges in which they must act with expertise, not only in technological matters, but also in management, business and in the social networks.

Usually, literature reaches the conclusion that small and middle-sized enterprises concentrate their efforts in supplying the demands from larger enterprises, since they stand in a position of economic disadvantage. Besides, it is presumed that there is an advantage in this relationship of dependency, which can be explained by each company's relative capacities to add value in a global process of production" [...] for which there are specific technological requirements that make production in series more difficult and favor the existence of market niches " (BOTELHO; CARRIJO; KAMASAKI, 2007, p. 337). Researches demonstrate the increasing participation of these small companies in the process of production and accumulation, which in average took over up to 40% of the market in European countries and the United States.(BOTELHO; CARRIJO; KAMASAKI, 2007).

On the other hand, the bibliography often mentions that the future could be gloom for small and medium-sized enterprises in the segment of IT: they tend to have a decreasing appropriation of the competitive advantages derived from the technological advancements as the larger companies increase their share of the benefits, due to their scale of production.

A question challenged our interest and made us focus on the routines of work in the companies that are incubated, during their first years of existence: why do these entrepreneurs have difficulties in identifying the best opportunities in the market and the best paths and practices to follow with respect to their projects in this market of the sector of IT? That is to say:

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<sup>1</sup>We use the notion of employability as developed by Gomes (2002), which refers to the possibility of keeping a job or conquering a new position. The idea suggested by the author is that employability is an outcome of a process of interaction which goes beyond the biographical characteristics, to include data from the social context (actors, market conditions, institutional panorama, among others).

why can't they leave what Roselino (2006) and Schwartzman (2002) considered a low or medium degree of informational value (closed technological packets) of their products and services as compared to one of a high degree? Why these workers and entrepreneurs have projections of high risk for the future, where we consider the conditions for action to be very favorable?

On the other hand, it is clear that work considered possibly exhausting (for a "bet" in this market which can perhaps not have any successful results) can also become a source of satisfaction and promising challenge, considering perspectives of innovation implicit in the products and services that they develop (ROSENFELD, 2009).

Reflecting about the work of Boltanski and Chiapelo (2012), we understand there are three requirements that need to be fulfilled so they can find the evidences of moral dimension which can support a positive experience with unstable work: 1) promises of engagement that lead to better practices of work and accumulation; 2) guarantees for work that usually lead to greater flexibilization, since it responds to demands of work framed by local networks of innovation; 3) the capacity of the actors to respond to the critiques that picture the world of networks as increasingly leading to insecurity of work relationships. Next, we shall develop this argument.

Based on these questions we developed our empirical research among professionals who are entrepreneurs being incubated by Midi Tecnológico, Santa Catarina state. In total, we had nine semi-structured interviews, in which we tried to explore the discourses and narratives about their professional routes and about the incubated enterprises. We will analyze the market situation for small entrepreneurs and workers, their relationships with actors in the local production network, to go on, in the last section, to analyzing the challenges they face to stay and make progress with their enterprises and employability in the market of IT.

## 2. WORK ROUTINES: TOWARD INNOVATION IN THE MARKET OF IT

Up to this point, our focus expanded after some fundamental perceptions about the role of SMEs and the work relationships that characterize their experiences of daily production.

First, we focused our attention upon the role of large national and transnational companies, mainly in the Southeast and South regions, which represent over half of the innovation in processes, techniques and adding value to products (ROSELINO, 2006). We also looked at the context of insecurity in work relations for this segment, with high rotation of labor and long work hours, besides low levels of formalization of work contracts, which impacts those who are at the base of social pyramid, dependent on benefits acquired through work (WOLF, 2014).

Finally, bibliography demonstrates that the strong ties (GRANOVETTER) do not significantly explain the access to economic resources through personal networks of sociability among workers and entrepreneurs of micro-businesses (BOZZANO, 2013; GUIMARÃES, 2010; HUBER, 2011).

Following Muller (2005), we observed that the access to the (economic, cultural and social) resources that these companies can have range through a wide variation in quality and capacity of retaining them in more solid ways, therefore leading to more consistent processes of innovation.

So, we noticed that the permanence and success of small companies and of workers in the market of IT has much to do with the complexity involved in adding value, which favors the economic and social process of a specific chain of valorization in IT. In this context, our attention is drawn to the "greater visibility, yet smaller importance" of SMEs in the chain of value of this sector (ÓRIAN, p.644, 2004).

From this point of view, we justify our interest in knowing how new knowledge in IT is incorporated in the elaboration of products and services that they develop, as well as the difficulties in staying or establishing themselves better within this market. Our hypothesis starts from the idea that workers and managers in micro-businesses are led towards associating a situation of low (economic) autonomy to the interest of investigating diverse social arenas: either looking for customers, or new opportunities of contracts with companies and universities, or, also, searching for work, supposing new relevant discoveries in IT (BOZZANO, 2013).

As pointed by one of the people we interviewed, we have the following narrative of the beginning of an enterprise and the relationship that it had with other companies for the development of their product in the market of IT:

In the beginning it was excellent, because we had great projects, profits beyond what we could draw from the services... the product provided maturity; provided many things in all aspects. But, once you start having a history for your company, more autonomy, more clients, then you start having a better position. **(interview 2).**

This narrative is important to let us understand that working under the condition of projects (BOLTANSKI; THEVENOT, 2009) - which is typical of this segment – that follow each other, towards new products that are developed and with diversified specifications, deadlines and demands, all this influences in the configuration of the work we are researching. Besides, it helps us understand how the tensions and sufferings, to which these workers are submitted, are developed, as they are shared and solved – partially – as full versions of work histories. It also helps us to evaluate their capability to face the associated disruptive effects.

In an enterprise based on strong family ties, we find that the freedom for elaboration of work routines and the presence of relatives and friends as advantages in keeping them placed in the work market and in a world made up of projects and networks. In this ideal world of projects, workers and managers we interviewed depend on new organization tools and techniques of production for work, which, on the other hand, need people who can handle this with skills, considering the high intellectual contents involved. As we see it, there is a demand to interact with these tools in relational ways<sup>2</sup>, which support old and long lasting friendship and kinship relations. As pointed out by one of the people we interviewed,

We are always together. When one of us cannot solve a problem or has to go out, I know he has given his best, stopping at a point where I can pick it up. Can you see this record player? A friend of mine asked me to build it. I made it entirely: put together the best parts, then I sent it to a friend asking him to weld it. That's it. I like music and I know this product will make a difference because there is no other like this one and also because you end up learning with these new challenges. If someone asks me to do something, I say I will do it. Why not? **(interview 4. Engineering course – not finished. Unemployed.)**

On the other hand, in face of this friendly atmosphere that is cultivated and planning for the future of the business, the participation and well being of its members is taken into consideration. This is due to the fact that also in these micro-businesses the participation as a

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<sup>2</sup> Typical of this situation is the elaboration of contents of software demanding the “comment” of a programmer, i.e., elaborated from the specification of the codes will work. The product that is being developed, in this sense, depends on the active role of these workers and managers when they expect from each other the capacity to elaborate the future characteristics of these codes as unexpected or potentially innovative: in short, that this will stimulate them to work with insecurity, and perhaps with no equivalent financial compensation.

whole in these moments, in which you do not separate work, friendship and home, certainly have an outstanding place in the narratives of those we interviewed, as challenges that are always present for those who wish to stay for a long time – and perhaps – climb the market of IT. As another person interviewed pointed out,

I have a small Volkswagen car, which is falling apart, thanks to my partner here at Midi. It takes me to see my son and to go around to sell my products, to search for new partners and clients. We are all in the same situation. The people at company X... one of them needed work in order to go on with their dream. One of these days, they got a test with a company that produces ice. Their product is very ingenious, it's going to make a revolution. The economy that this company will have will have to open the door for these guys. In the meantime, we are struggling. **(interview 4).**

Quite often, in our interviews, we found a strong opinion stating that the investments they do or did in the past could not go on: either because, from the point of view of the family logics, there would be no space for the unstableness of the dynamics and instability of the market of IT, or because they simply did not see themselves doing the same thing they do or had done in the past: “[...] this world is very difficult. We cannot go on working without earning and working long hours.” **(interview 8).**

Anyway, there are expectations among those we interviewed that the future can become a little more reliable, less unpredictable, but at the same time, dynamic and with stimulating work opportunities in the horizon. For the time being, we can notice the wish to be recognized for these autonomous investments in this market and the need for stability, which is not entirely contradictory with their flexible labor routes. This does not mean that this experience, which is socially built, cannot lead to unpredictable results, which is a source of worries – as we have just seen through the interview above – and a source of interest from these workers and managers in evaluating the destinies of this market of IT.

Therefore, we understand that they set in motion different social spheres when they tell us their histories of work. Each history presents itself as an unexpected event, in which innovation can occur at any time, because they did not place the relationships based on friendship<sup>3</sup> at risk, since this is an event that enables to go through the instabilities of the position they hold in this market. As observed by one of the people we interviewed in this long, however very significant, extract of his speech,

We can never feel that we are stable. But if you are an entrepreneur, you have to learn how to deal with people, you don't want to have any problems. You go and get stressed. If you are not able to deal with insecurity, you better not open an enterprise. Because instability is constant. There is no way out. In the beginning it is more difficult but then it gets a little better. For example, we, until the end of the first semester, we have some resources. From then on, I don't have any clientes, I don't have any contracts... we are negotiating three now, but I don't know. [...] We have to have alternatives, right? We always live like this... it is part of everybody's reality. At least, in the conversations I had, everybody is going through the same situation, not knowing what is going to happen with him the following year. If the guy knows what is going to happen in nine

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<sup>3</sup> For Boltanski and Thevenot this capacity, which is crucial at moments in which the relationships are submitted to the revisions of their normative contents of the established relationships – the common sense of justice of the actors – is one of the attributes of the Great ones, who carry in them the examples that equalize diverse social logics when they face each other – therefore, not only due to a merit or immanent attribute of the individual, but rather because these examples are compared and appreciated when placed in the same relational plane (grammar of moral acts).

months, fine. If the guy knows what is going to happen in six months, that is normal. We have gone through times in which we didn't know what was going to happen in three months. "Look, guys, I don't know... anything can happen. This, or this, or this..." I had eight alternatives. Lucky that the second best occurred; the worst one could have occurred. **(interview 1)**.

In order to help us understand this social dynamics, the people we interviewed showed us how they perceived their work when they stated that their daily efforts could be "put in parenthesis", that is, could either be used or not. So, as one of the interviews points out,

**Interviewed:** What happened is that none of our projects...one of them went through... one was successful..the one of the cattle chip was approved.

**Gabriel:** Cattle chip?

**Entrevistado:** Yes, it is a chip for you to install in the cattle, so you can trace it. It has a chip where you can see his number, so you can keep information about it. Our team designed this project. And this project is now going to the market, slowly, but it is going... But the other projects just didn't pass... they stayed behind... they were "deleted". **(engineer, 36 years old, partner-owner of an enterprise)**.

What we can notice in this interview are work routines that are framed by the development of codes, which are turned into functionalities: devices that are able to generate, collect and document activities and technological processes in relation to certain functionalities. In every day routines, we find workers and managers of projects in the same work space, trying to translate a list of functionalities that are expected from a product, turning them into "[...] realistic and workable projects" (ANDREWS; LAIR; LANDRY, 2005, p. 47).

From the point of view of the configuration of the market of IT, this could occur because of a growing importance demanded from the workers that aim at proportionate revenues for the companies in which they participate. One of the people we interviewed states that

[...] I need income... so this is why we are working very hard, with a knife between our teeth... Racing to have income as soon as possible in order to 'put our products on the shelf, [...] but I always have doubts... what support should I look for? How do I get financial support from this one or that one as an investment... to write a plan of business... **(Partner-owner of the enterprise with unfinished course in Engineering, 35 years old)**.

For these scale resources, it is common to see practices of "componentization" and "reuse" of parts of programs of modules, in the language of specialists in computing and IT engineering. We notice this need to refer to the different possibilities of use of the contents and processes of production which they have available.

**Gabriel:** This and the trash (company's product), have much incorporated knowledge?

**Interviewed:** Yes... logistics, certification, adequate destinies, it goes through a complete chain to reach X ( product in development).. it is also a part of this chain of a wider system we are designing, the creation of stock markets for residues, to the valorization of the residues that you might find: hey! Instead of two reals, the guy here in Palhoça pays... then comes the guy from São Paulo with the truck and pays him ten. It's worth paying... there are several services and products added to this idea of management of residues, right? **(Mechanics Engineering, uncompleted, 35 years old, partner-owner of the enterprise)**.

In the same direction, another person we interviewed tells us, from the point of view of creation of a trademark, about how it adjusts itself to the dynamics of componentization of the parts of a product.

From now on, I will act here and I will no longer use my skills there. Because now he is not taking my services, but later he will grow and will have a demand for them [...]. Then I will serve him, with the same quality I used to have, yet offering a differential, because if I were to keep him, I would not be able to, because I am not following the market anymore, it not my focus any longer. So, there is a lot of people around here who are doing this every day so they can serve better. (*Designer, 34 years old, partner of the enterprise*).

Another person who was interviewed, in the same track, talked in specific about the opportunities that are open in this market

We are trying to make money with it (the new product) and it is not difficult to find people who make money with services. But it's not the same with products. With a product, you must charge the right price, you have to know how to sell, there are several things you have to see before you go out there to get established in the market. So it's easier to sell services, but we have the idea that we shouldn't work so hard. So, when you can not sell any products, you can offer your services so you never stop making money, and your company still has profits. (*Bachelor in Information Systems, 27 years old*).

So, choosing the right place to work and how to do your work become imperative demands for the success of your enterprises. Keeping in mind the opportunities that show up, in a game in which the skills of these workers are presented submitted to their capacity of translating these desires and priorities to several clients (BOZZANO, 2013).

For these workers and managers, the unstable conditions of work have beginning, middle and end, typical of any work through projects. However, this instability in which clients, competitors, suppliers and any other actor may and must – in their speeches – bring something that adds value to the initial proposal of the company and their employments – fundamental for the maintenance of paths to friendship and social spaces in which they circulate (BOLTANSKI; THEVENOT, 2010).

This ideological condition explains much when we associate the positions of the enterprises we are researching on: small businesses, in a segment of high added value, in which the control upon all the processes of innovation are not acquired easily, even with consistent indicators of national innovation (GUIMARÃES, 2010).

From all this time in the company, we built this quality of services, of solutions, just as many companies have a history of terrible services. This are the results of your trademark, of a culture of management, structure of service to the costumers, regarding the issue of guarantee of quality, of establishing limits; when I say limits, I mean financial and technological stabilities. Very often we had to say no to a project, we had to let go a project, to keep the quality, the expectations, the value that was being reached along the project was not satisfactory. (*Designer, 34 years old, partner in the company*).

Therefore, the best chances of success are materialized in exponential opportunities of profit – through luck, that has much to do with the expectations in this market. However, in the

daily activities of these workers, the success they perceive also means a way of getting engaged with processes of valorization of products of IT and also of finding the way in this network space, in which an innovative IT product is very similar - in many senses – to the *status* the worker attributes to himself. As observed by one of the persons we interviewed, “the service we have is our competence, basically our experience, some technological components we can reuse, and we have one or two products too, which is the product we sell”.

We realize that they deal with their work relations and sociability as if they were getting a market price for it (both from the point of view of the worker and the manager). However, we also emphasize an almost obsessive concern to keep these same clients, competitors and suppliers as “partners” in a common project. Therefore, they act in a very active way on their work histories, undermining the typical ideological effects of discourse in network and incorporating them into their daily work experiences. Thus, we are not surprised that they state that the best strategy is *networking*, that is, to consider instability as guiding principle in this universe. According to one of the people we interviewed,

There must be *network*. Nowadays, this is what counts. You have to talk to everyone. You always have to wish people around you to do well. The people who are around you whom you wish to do well will also wish you to do well. Because at some point these people will be your clients, eventually they will have more business than you, they will recommend you, or they might be your suppliers, who will open doors for you. So, actually, you must have a good relationship with your counterparts, otherwise you will be in trouble. **(Electrical engineer, 37 years old, employed).**

The difficulties to go into and follow the demands referring to the high cycle of innovation of products of IT and the low capitalization of their companies, both indicate the valorization of the personal networks in which they are inserted as a way to act in the market of IT. Therefore, we understand that in order to stay in this market, they must adopt this ideological dimension we mentioned as a way to make sense of the complexity of social relations involved in their daily activities. They could have a variation, even when the potential of the threat of work insecurity in these relations is considered a positive side of instability (ROSENFELD, 2009).

This last point, seen through the eyes of the global and local relationships that redefine the spaces of work we researched on, places the resentment and the difficulties in staying in this market as a temporary obstacle. This is similar to saying that working in codes of low technological complexity and “customizing them” for several clients is also a stage towards innovation – although we are frequently told that we have to be submitted to the codes of relationship in these niches of IT. One of the people we interviewed said that.

**Interviewed:** Sometimes I didn’t understand something and I wanted to participate in more projects. They produced many projects, the projects were nice, challenging, so the rhythm of work in those projects in the first year was nice, in the second year was nice, but it ended up turning into a routine.

**Gabriel:** So you wanted to be able to choose your projects?

**Interviewed:** That’s it. In the best chances, that’s it: being able to choose. But you never choose

[...] But sometimes it takes a long time... or maybe you don’t have the opportunity at that moment [...]. The guys (friends and coworkers with whom he worked in the past) compete in several areas, but they are together in other areas. You can no longer say: “this is my competitor and I don’t speak to him.” On the contrary: let me talk to him to see a few techniques in this category.... Let me see this panel you are creating for which we are competing... Maybe we can set up a cartel or something like this so we stop this

guy who is squeezing us? Sometimes the price is going down and we agree: “Don’t lower your prices... it is too low”... **(engineer, 36 years old, manager)**.

Within this context, we can give attention to the daily activities of production of IT, which follow a few stages: one which is technical and implies updating the informational contents, followed by a relationship of prospecting for new partners for the development of your goods and services, and finally, following up on the wishes of those customers you already have.

This way, their routines are framed by the constant demand for systematizing the codes, which, on the other hand, leads to the definition of the architecture or design of the product. This is very characteristic of the programming activities in which the professionals act and juxtapose their comments to the production of codes, i. e., what these codes should do before their utilization. There is, therefore, a hierarchy of professionals according to their capacity of commenting and work these codes as well as adjusting themselves to the customers’ demands, according to their diversified needs that go beyond the specifications of the product itself (ANDREWS; LAIR; LANDRY, 2005).

This hierarchical organization is related to an intensive relationship to the routines and to these workers’ need to engage themselves in a more active way – i.e. – base their work on the division of labor defined in these companies and adjust themselves to it in a way by which their activities are constantly participating in the elaboration of the formal and informal stages of the innovative work. There is a pressure for the production of these codes in the least possible amount of time, which turns this approach the most “rational choice” among programmers and those responsible for managing the project:

You don’t want them to simply say “this is the only way to do it”. Think of other ways in which it could be done. Have a healthy conversation and solve all of this, and perhaps there will be a fourth path after you have discussed the previous three. We use the term “think outside the box”. Be creative. (ANDREWS; LAIR; LANDRY, tradução livre, 2005, p .48).

In a similar way, someone else we interviewed observes that “[...] our major difficulty is that we need programmers who know more than just the language, but also the techniques of programming, algebra, physics... so, that’s where the problem comes... **(Computer scientist, 55 yearsold, partner in thecompany)**.

The “rational” solutions cannot be previously defined because – simply – there would not be a better one. However, it is “the best solution” for the limitations of a certain company – once it has decided on a kind of work organization and market niche (BARON; HANNA, 2005). Therefore, we double the work efforts of that group of workers to a level of urgency – which is built, as we have seen – from the fact that their routine activities must be the most efficient for a certain target and also the ones that demand less efforts: “[...] less complex, more reliable, and most probability of pleasing the customer”. (BARON; HANNA, 2005, p. 49). According to Andrews, Lair e Landry (BARON; HANNA, 2005, p. 47),

[...] the *design* highlights a general picture of how these functionalities are built and outlines the relationships among several segments of functionalities in the program. It is also a process of finding the best path to bring all parts of the program together, given the resources, the time and the restrictions.

The design adds value to the functionalities that are expected to be the most adequate to the kind of product that they are building. The companies that have finished products, i.e., products that are ready for use by their costumers, follow this shared expectation in the organization of their work routines. However, until they reach this stage, they would have to anticipate themselves to the costumer's needs – therefore, they are subject to demands that are variable and that have low added value – until they reach the larger scale.

During these moments, workers are usually coordinated by the managers – who are also workers, who can become business partners, a professional status that has resulted, for these profiles, in constant losses of prestige and income (BOLTANSKI, 1987). As a group, they measured and discussed the best solutions for the product in construction. Normally, personal characteristics of workers show up, considering the influence of design for the production of functionalities. After field researches, in the region of Baltimore, USA, Baron and Hannan (2005) stated that "[...] different from manufacture, the production of codes is extremely variable". As one of the people we interview points out,

[...] we didn't spend too much time. We sent them a prototype, we let them play with it a little bit and, actually, the client rules the product here. The client directs the changes. The idea is to spend as little time as possible, to give them the prototype. They start playing with it and they work for us, and basically we change it a little according to what they ask for and next we offer it (ANDREWS; LAIR; LANDRY, 2005, p. 47).

Next, if at a first level the "[...] conception and working are partially together ", there is a second level in which:

The codification

At a level of product development is strategical; with hundres and even thousands of functionalities, it would be too difficult for a leader programmer to perform this function and then pass it on, the *design*, to other programmers. (ANDREWS; LAIR; LANDRY, 2005, p. 48).

The involvement in *design* at the second level presents itself as a strategic decision, which increases personal involvement with the company. However, given the high rotation of workers, the difficulties to get into this sector and particularly, the difficulties of the specific relationship between capital and labor which we have presented, we understand that this market demands a better explanation about the complex network of phenomena inscribed in the production networks of the sector.

### 3. FINAL CONSIDERATIONS

We investigated the social construction of the work experiences of small entrepreneurs and workers with IT, participating of Midi Tecnológico. Their work routines, in the first years of business, inform about the necessity and urgency of having an active position in different stages of the chain of value related to the products and services they are developing: from the processes of creation of informational contents, to prospecting for new clients, to the articulation of alliances, fundraising and partnerships with universities.

The path we chose was to investigate the construction of a flexible experience and work dynamics, which is present as a main characteristic of the histories of work in this sector. If they have a greater chance of remaining in this market due to their passages through the incubator,

another factor is the trust among these several partners and links in a chain – often – a complex one. Therefore, they search and find evidences that their work routine will lead them to innovate in processes that demand longer permanence and insertion in the local networks of production.

Consequently, we saw that their histories of entrepreneuring and innovation had good chances of materializing. Therefore, we emphasized the moment of transition and construction of the symbolic, cultural and economic experience of the position in which their products and services are positioned, which implies an average or low concentration of technological contents and lead this position to one of higher concentration of technological contents.

These entrepreneurs and workers, who occupy eminent positions in their companies, look for proofs that their investments, their networks of contacts and the knowledge they acquired can be used by the companies for which they work, resulting in products accepted by the market. We looked for evidences that prove the need that they insert themselves into incubators – with a greater access to universities, investors -, which would allow them to optimize the processes of innovation related to their daily work, articulating the little resources that are available for persistent ways to innovation.

## REFERENCES

ABES. *Abes software*: para promover, informar e proteger o setor brasileiro de *software*. Disponível em <<http://www.abes.org.br/templ3.aspx?id=232&sub=20>> Acesso em: 20 fev. 2012

BARON, James N; Hannan, Michael T (2005). *The economic sociology of organizational entrepreneurship: lessons from Stanfor project of emerging companies*. In: NEE; Victor e Swedberg. *The sociology of capitalism*. New Jersey: Princeton.

BOLTANSKI, Luc; Chiapello, Ève (2010). *O novo espírito do capitalismo*. São Paulo: Martins Fontes.

BOZZANO, Gabriel de Souza (2013). *Os sentidos do trabalho de TI pelos incubados no Midi Tecnológico: empregabilidade num mundo conexcionista*. Dissertação de mestrado, UFSC. Florianópolis.

BOZZANO, Gabriel de Souza; ETCHEVERRY, Maria Soledad (2013). *Os sentidos do trabalho de Ti pelos incubados no Midi Tecnológico/SC*. ALAS (Associação Latino America de Sociologia). Chile.

BOTELHO, Marisa Azevedo dos Reis; CARRIJO, Michele de Castro; KAMASAKI, Gisele Yumi. (2007). *Inovações, pequenas empresas e interação com instituições de ensino/pesquisa em arranjos produtivos locais de setores de tecnologia avançada*. Rio de Janeiro: Revista de Inovação.

GUIMARÃES, Sonia K. (2010). *Pequenas e médias empresas produtos de bens intensivos em conhecimento, empreendedorismo e inovação*. Relatório de pesquisa: UFRGS.

ROSELINO, Jose Eduardo (2006). *Análise da indústria brasileira de software com base em uma taxionomia das empresas: subsídios para política industrial*. Revista brasileira de inovação. vol. 5, n. 1, jan.

ROSENFELD, Cinara L. (2009). *Quadros superiores de TICs: mobilidade ou fragilização*. 33 Encontro Anual da ANPOCS, 2009. Caxambu-MG. Programa e Resumos - 33 Encontro Anual da ANPOCS, v. 1.

ROSENBERG, Nathan (2006). *Por dentro da caixa-preta: tecnologia e economia*. Campinas, SP. Unicamp.

SCHWARTZMAN, Simon (2002). *A pesquisa científica e o interesse público*. Revista de inovação brasileira.

TIGRE, Paulo Bastos (2005). *Paradigmas Tecnológicos e Teorias Econômicas da Firma*. Revista Brasileira de Inovação Volume 4 Número 1 Janeiro / Junho.

ZULOCOTO, Graziela Ferrero; CASSIOLATO, José Eduardo (2013). *Desenvolvimento tecnológico por origem de capital: a experiência brasileira recente*. Revista Brasileira de Inovação, Campinas (SP), 12 (1), p.133-170, janeiro/junho.