

# Precarity, precariousness and software workers: wages, unions and subjectivity in the Argentinian software and information services sector

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## **ABSTRACT**

This article focuses on a paradigmatic type of knowledge work: informatics. Specifically, it studies the processes of *precarity* and *precariousness* taking place in the Argentinian software and information services (SIS) sector. After a brief introduction, it discusses the relevant literature, introducing the concepts of precarity and precariousness. Then it looks at the data relating to employment, exports and wages in the Argentinean SIS sector before moving on to address a key element for understanding precarity: the complexities of unionisation in the SIS sector. Finally, it analyses precariousness in the sector by attempting to characterise the subjectivities of these workers.

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## **Introduction**

In the current stage of capitalism, Informational Capitalism, the main form knowledge work takes is that of informational labour (Castells, 1996; Fuchs, 2011; Zukerfeld, 2013). The paradigmatic model of this kind of labour is that of the worker in the so-called 'software and information services' (SIS) sector. The Argentinian SIS sector has been growing steadily over the last few decades in terms of income, exports and, particularly, highly skilled employment. Indeed, SIS is the branch of economic activity

which achieved the highest relative increase in employment for the period 1998-2014. As a result of this growth, a broad consensus of opinion has developed about the opportunities the sector should be offering in order to catch up (Malerba & Nelson, 2011) and join the so-called knowledge-based economy (Chudnovsky, López & Melitsko, 2001; López, Ramos & Torre, 2010; Novick et al., 2011; Yoguel, Erbes y Robert, 2006; Dughera et al., 2011). Moreover, reports from the sector's chamber of commerce (CESSI, in Spanish) have drawn attention to the fact that companies in the sector are willing to pay high wages, because the scarce human resources are constantly in demand.

However, there are good reasons to question this kind of discourse. A close analysis of the evolution of wages shows that, if compared with other sectors and adjusted by inflation, software workers have not been receiving the lion's share of the sector's growth. Actually, SIS is the branch of activity where relative wage increases have been the lowest over the aforementioned period. Moreover, the purchasing power of the average worker in the formal registered sector has decreased (Zukerfeld, 2014). This article presents detailed evidence of this tendency, through the analysis of national statistics.

The evolution of wages is inextricably linked to the second topic of this article: the lack of powerful labour unions tailored to represent workers in the SIS sector. We present evidence here that suggests that the vast majority of software workers are not covered by a union or, in the best case, are subsumed under unions that have little connection with the SIS sector. Our qualitative fieldwork<sup>1</sup> suggests three explanations for this situation. The first of these is to some extent 'objective': in several so-called software factories, unionisation has been directly forbidden. Despite this, various small unions are competing to affiliate workers in the sector but none of them has grown sufficiently to become a leading force in the sector. More importantly, none of the sector-specific unions have received the official recognition from the government that is required in order to be able to negotiate on behalf of the workers they represent.

Low wages and the lack of powerful and specifically tailored unions are thus two faces of the *precarity* of SIS workers, illustrating the fact that precarisation is taking place even among formally registered employees in the private sector, especially in an activity that is promoted as creative and innovative.

However, there are a further two elements which explain the lack of unionisation among software workers: their *precariousness* and their *subjectivity*. On one hand, these workers in informational capitalism tend to reject the methods of traditional unions, devised by and for other subjects, those belonging to industrial capitalism. On the other

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1 Beyond specific literature and statistic sources, this article draws on three kind of qualitative sources. The first of these sources is five ad hoc interviews with leaders of each of the following unions or professional associations: AGC, UI, SUTIRA, UTSA and CPCI. The second was a study conducted by us in the City of Buenos Aires, between September and December, 2010, consisting of 24 in-depth interviews with software producers, and an in-depth interview with a key informant which included a set of questions regarding unionisation. Thirdly, we opened a discussion on an online forum – Psicofxp: <<http://www.psicofxp.com/forums/temas-laborales.128/348757-sindicato-informaticos-y-sueldos-fuera-convenio.html>>. This produced 118 postings from software workers discussing the pros and cons of unionisation, the tension between recognising themselves as workers and as professionals, and other related issues.

hand, and more importantly, ideological discourses about autonomy, individual achievement, 'talent', entrepreneurship and so on have really shaped these workers' subjectivity and are a key to understanding their precarisation.

After this introduction, the second section of this article briefly discusses the relevant literature, introducing the concepts of precarity and precariousness in the context of recent Argentinian economic trends. The third section focuses on data about employment, exports and wages, specifically in the Argentinean SIS sector. The complexities of unionisation in the SIS sector, a key element for understanding precarity, are discussed in the fourth section. The fifth section addresses precariousness by attempting to characterise the subjectivities of these workers. Finally, we present our conclusions.

## Precarity and precariousness in Argentina

During the 1990s, Argentinian society was deeply disrupted by the shock caused by the introduction of neoliberal policies which, among other things, had dramatic impacts on labour markets and working conditions. Moreover, despite (or because of) the huge increase in public debt and the privatisation of public enterprises, there was little economic growth and the distribution of income became more unequal. Thus, towards the end of the century, Argentina's economic performance was weak, while public debt, poverty, unemployment, underemployment, unregistered work and precarious employment were skyrocketing (Iñigo Carrera, 2002; Salvia, 2002; Neffa, 2008).

In this context, several studies of unemployment, informal labour and precarisation were published by local academics (Beccaria et al., 2000; Lindenboim, Serino y González, 2000; Salvia et al., 2000; Salvia, 2002; Salvia y Tissiera, 2002; Neffa, 2008; Busso y Pérez, 2010).

The Argentinian literature on labour precarity conceived it as a process of degradation of the 'classic wage relation' or 'Fordism', and defined it in contrast to 'real jobs' or 'typical employment' (Neffa, Oliveri, Persia & Trucco, 2010:6). Indeed, these publications typically clustered under the concept of labour precarity unregistered or informal workers, those whose employment was not covered by the legal framework, who were excluded from social security and who lacked union representation. This approach assumed that precarisation was an anomaly, an exception to the normal state of affairs, and fell short of understanding the shift of stage that capitalism has undertaken, from industrial to informational capitalism (Castells, 1996), in which precarisation is a usual feature of the labour market landscape. Certainly, this kind of approach echoes the classic international literature on precariousness.

However, in recent years another body of literature has emerged, focusing on the categories of 'precarity', 'precariousness', and the 'precaria', locating precarious workers in broader contexts than the narrow framework into which they were often confined by earlier writers (Standing, 2011; Armano & Murgia, 2014; Fumagalli, 2007; Ettlinger, 2014). In this sense, Armano and Murgia (2014), building on Standing's approach (2011), make a distinction between *precarity* as a structural condition bound up with work and contractual forms, and *precariousness* as a subjective process of life experience, qualitatively inherent in people and their positions (Armano y Murgia, 2014:488). It is the latter that forms the focal point of study in this literature. The effects

of precariousness upon these subjectivities are varied, and these authors show that they extend beyond the working environment, bringing about an existential precarity (Fumagalli, 2007).

Thus, the concept of *precariousness* is expanded to refer not only to the workers placed at the margins of the labour market, but rather to grasp the vital experience and deterioration of life conditions of a wide range of workers, including waged labourers (Alves, 2011).

We believe that this approach is particularly useful for understanding the precarisation of Argentinian SIS workers during the last decade, which contrasts with the 1990s in several ways. Indeed, the new economic context reveals even more clearly than before the flaws and limits of the traditional literature on precarisation.

From 2003 onwards, the Argentinian economy entered a path of steady economic growth that resulted in an expansion of registered employment and a relative decrease in the numbers of informal workers. Between 2003 and 2012, the accumulated increase in GDP was 83%,<sup>2</sup> while registered employment in the private sector grew by 73%.<sup>3</sup> In turn, from 2003, collective bargaining was re-established (it was suspended in the 1990s), and this led to a sustained increase in average wages in the private sector.

As we shall see, in this context, SIS sector showed an immediate and dramatic upsurge in private and registered employment. Nevertheless, and counter-intuitively, our analysis shows that SIS workers also witnessed a systematic degradation of their living conditions during this decade.

In the next sections, we discuss both precarity and precariousness and the ways that they are intertwined. The precarity of SIS workers is discussed in relation to the recent evolution of their wages and the legal limitations imposed on unions in this particular sector, as a relevant factor for understanding the trend in wages. In addition, precariousness is analysed in relation to the subjectivity of SIS workers. Indeed, we will demonstrate how precariousness, that is the particular process of subjectification it represents, is necessary in order to prevent workers from joining unions and/or engaging in collective action.

We also draw loosely on Ettliger's (2014) analysis of the relevance of digital technologies in shaping the precarisation process. In this vein, we limit our findings to what we have been calling 'informational work' (Zukerfeld, 2013) and not to more generalised phenomena which extend throughout the whole economy.

## **Argentinian software and information services sector**

The Argentinian software and services sector makes a particularly case for examination in the context of the discussion about precarisation, because it gives us a picture of both sides of the coin, with completely opposed attributes. On one hand, we have the characteristics of the Software Chamber of Commerce (CESSI), a sector that has experienced huge growth in sales and exports over recent years. Benefiting from public policies (particularly the enacting of the Software Law in 2004), its most striking aspect,

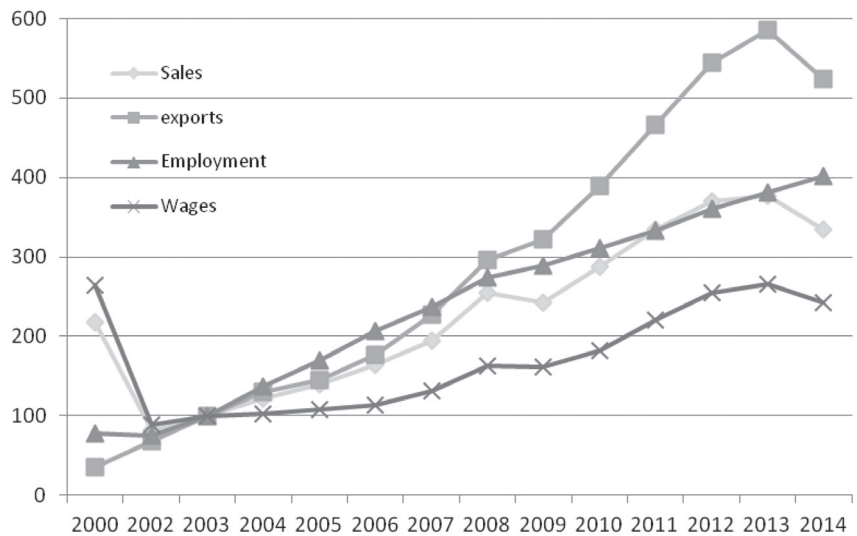
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2 Source: National Institute of Statistics, Argentina (INDEC).

3 Source: Observatory of Employment and Economic Development, Labour Ministry (OEDE, 2015).

however, does not lie in sales but rather in employment. Indeed, this is a sector which in relative terms has generated the greatest quantity of private sector registered jobs in the whole Argentinian economy over the last 15 years. However, the other side of the coin, which is either not spoken about or about which the data are distorted, is the dynamic of wages. Here we can observe a very different tendency. It is important to note that the nominal value of wages in informatics is generally higher than in the bulk of the rest of the economy. However, here we would like to draw readers' attention to the evolution of salaries in the SIS sector over the last few years.

Figure 1 shows that sales, exports and employment grew much more than average wages in this sector between 2000 and 2014. However, this alone is insufficient to explain the situation. This could be a trend for the whole economy, or it could be that the workers, in spite of the fact that their salaries had increased less than sales, nevertheless strengthened their purchasing power. In the final analysis, nominal wages present an increase in value and, in a context of enormous growth in employment and the declared scarcity of an appropriately skilled workforce, a growth in SIS workers' purchasing power is to be expected. However, nothing could be further from the truth. Actually, if we compare the evolution of wages across different branches of the economy, we find that workers in the SIS sector have enjoyed *lower* increases than workers in the rest of economy. On the other hand, and even worse, when the evolution of the purchasing power of their salaries is calculated, we discover that informatics workers are in fact the only category who *lost* purchasing power over the period 1998–2014. This can be seen in a condensed fashion in Table 1.



**Figure 1: Evolution of sales, exports, employment and wages of main SIS enterprises (2000-2014, 2003 = 100)**

Source: OPSSI (2014) and Observatory of Employment and Economic Development (OEDE; 2015).

Note: Exports, sales and wages were measured in current USD.

**Table 1: Real wages variation (Argentina, 2014/1998): Selected branches.**

Sector	Evolution of real wages
Software and information services (SSI)	-20%
Financial and insurance activities	11%
Accommodation and food service activities	25%
Manufacture of motor vehicles, trailers and semi-trailers	38%
Legal and accounting activities	41%
Wholesale and retail trade	44%
Manufacture of food products	46%
Mining of metal ores	48%
Construction	48%
Manufacture of fabricated metal products, except machinery and equipment	50%
Land transport	55%
All sectors average	4%

Source: Author's elaboration based on Observatory of Employment and Economic Development for nominal average wages. Inflation has been estimated using the annual average of IPC GBA (1998–2007) and IPC San Luis (2008–2014).

This raises the paradigmatic contradiction of private sector registered employment in the SIS sector, locating it at two extremes: the greatest creation of jobs and the lowest increase in salaries across the whole economy. This situation flies in the face of economic theory, particularly neoclassical economic theory, as well as the ideological discourse based on these theories, such as the contribution below from the President of the Argentinian SIS chamber of commerce (CESSI):

*80% of the companies in our industry have problems today in attracting workers with the most sought-after profiles; there is a war for talent. This is reflected in salaries because it is about supply and demand. Salaries increase because of scarcity ... there is a scale that can go from AR\$12,000 to AR\$35,000 for all the desirable profiles. The range is broad because a career inside this industry is highly prized. (Aníbal Carmona, 3 March 2016. Interview in La Nación newspaper)*

Indeed, in a sector in which skilled workers are in scarce supply, the cost of labour would be expected to increase. Of course, it is not surprising to find that the reality and neoclassical economic theory do not coincide. However, what could be the cause of such a significant divergence? We argue here that, above all, this can be traced to the extremely low union density.

## Precarity: unions

This section analyses precarity from the perspective of the paradox underlined by Ursula Huws:

*In a curious paradox, work is increasingly formalised even while it becomes less predictable and more precarious ... 'There is every likelihood that the convergence will extend and continue, with work across many areas of the economy becoming simultaneously both more formalised and more precarious; more interconnected, yet more atomised. (Huws, 2016:7)*

Indeed, in the Argentinian SIS sector, registered employment has been growing steadily while precarity, particularly the lack of unionisation, has been far from diminishing.

Let us put this in context. The rate of union density in the registered private sector in Argentina is around the 37% mark, while 39% of the workers in the sector have a union representative at their workplace (Novick, 2012:14). Although precise figures are not available, in manufacturing, construction, and services such as transport and retail, it has been estimated that between 40% and 50% of workers are union members (MTEySS, 2008:5). However, in the case of software and informatics services, our estimations indicate that a maximum of 8% of the workforce is affiliated to a sector-specific union organisation or professional association.<sup>4</sup>

Thus, we note the link between the rate of salary increase that we saw in Table 1 and the rate of affiliation to various unions. Over the last few years, in Argentina, the most powerful labour unions have achieved better results in terms of average wages for their members in private sector registered jobs. But why is union density so low in the informatics sector? Below we give an account of some factors connected to regulation, and to the labour unions and professional associations themselves – those factors which, to a certain extent, are objective or exogenous to the workers themselves. Then, in the following section, we turn our attention to those subjective and ideological factors which configure precariousness.

A primary element which configures *precarity* for informatics workers lies in the fact that even though there are various registered professional associations (see Table 2), none of them have official recognition status (*personería*), meaning recognition from the Ministry of Labour which permits them, among other activities, to take part in collective bargaining as a representative of the sector and to sign Collective Labour Agreements (CLAs).<sup>5</sup>

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4 This figure is a rough estimation. It derives from adding together the active members declared by the main union organisations and associations (Professional Informatics Sciences Association, Professional Computing Association, Informatics Union, UTSA Informatics branch) and dividing that by the total number of registered jobs in the sector. Given that we only have data from the professional associations, who tend to overestimate their representativeness, the membership rate may in fact be even lower.

5 In Argentina, all labour unions and professional associations have to register with the Ministry of Labour once they have been founded, which then has 90 days to award a 'simple registration'. With this, their industrial action has legal recognition. Argentinian legislation allows for an unlimited number of organisations and associations to be registered within the same sphere (company, sector, region etc.), but only one union can obtain official recognition status. To receive that, it needs to register the affiliation of more than 20% of the workers in that particular sphere. Once official recognition status has been awarded, the working conditions negotiated and agreed by that union are extended to all the workers in the sector whether they are union members or not.

**Table 2: Trade unions specific to the SIS sector in Argentina<sup>6,7</sup>**

**UNIONS SPECIFIC TO THE SECTOR:**

**1. Professional Computing Association (AGC)**

**Founded:** 1992

**Union recognition status:** without

**Members:** 1800

**Alignment:** Independent

**Pertinent information:** In 1994 the association signed the first Collective Labour Agreement (CLA) for the sector with the Chamber of Commerce for Software and Informatics Services (CESSI), but this was never applied or recognised by the Ministry for Labour.

**2. Informatics Union (UI)**

**Founded:** 2011

**Union recognition status:** without

**Members:** 1000

**Alignment:** CGT (Moyano)

**Pertinent information:** The union was born as a split from Ceptel (Del Fueyo, J., Campilongo, M., & Rud, I., 2015). IU's members place emphasis on their union activities within the workplace and the use of industrial action which, according to them, is absent from the other collective organizations in the sector.

**3. Union of United Informatics Workers of the Republic of Argentina (Sutira)**

**Founded:** 2011

**Union recognition status:** without

**Members:** Not reported

**Alignment:** CGT (Barrionuevo)

**Pertinent information:** From the information provided by the union and what can be seen on the website, their activity seems to be orientated towards bargaining with the large employers in the sector rather than organising the workers. The General Secretary, on being consulted about the number of members, refused to reveal that information 'so as not to play the game of who has more'. Despite repeated attempts, we have not been able to find out this data. The union alleges that it signed a CLA with CESSI in 2013, but the chamber denies it.

**UNIONS NOT SPECIFIC TO THE SECTOR**

**1. Union of Authors' Society Workers and Associated Professions (UTSA)**

6 This brief summary derives from our interviews and secondary sources. However, it should be borne in mind that this refers to an extremely dynamic situation.

7 There are also some specific provincial or regional unions, such as SICOR (Technological Union of Córdoba), UTICH (Informatics Workers' Union of El Chaco), and SIARNE (Union of Informatics and Associated Workers of Río Negro and Neuquén), whose local representativeness we have not been able to establish so far. In addition, there are two specific unions whose presence we detected in previous research (Ferpozzi & Zukerfeld, 2012), but that currently seem to be disarticulated: one of them is Cepetal informatics branch, an old union for telephonic professionals which, after incorporating a group of informatics workers in 2006, started to work in the sector. Around 2011, its informatics branch had 1,000 members. However, the same year it split and a group of informatics workers left to found the Informatics Union. From then on, the union seems to have limited its activity to telecommunications companies. The other is the Professional Association of Informatics Systems Operators and Associated Professions (AGOSIA). It was founded in 2006 and joined the CGT. Around 2008, it had 2,000 members. However, it seems to have ceased to exist after the death of its general secretary (Ferpozzi & Zukerfeld, 2012).



**Founded:** 1946

**Union recognition status:** In 1947 the union was awarded recognition in order to be able to represent workers owning copyrights.

**Members:** Not reported

**Alignment:** CGT (Caló)

**Pertinent information:** In 2009 the union opened negotiations with the CESSI with the aim of representing workers in the SIS sector, and founded UTSA Software. The argument for that was 'as software is intellectual property, it is the duty of this union to represent its workers'. However, it is not clear what level of recognition it currently has in order to work in the SIS sector. Even though the union signed a CLA in 2013 with CESSI to regulate working conditions in the sector, this was not ratified by the Ministry for Labour. Politically, it is aligned with the CGT Balcarce. Unfortunately, despite repeated our attempts to communicate with them, the UTSA Software authorities have refused to answer our questions and, specifically, to indicate to us the number of affiliates they have.

## PROFESSIONAL ASSOCIATIONS SPECIFIC TO THE SECTOR

### 1. Professional Association of Informatics Sciences (CPCI)

**Founded:** 1984

**Members:** 4500

**Alignment:** Not applicable

**Pertinent information:** Although this is a Professional Association and not a labour union, it carries out functions which are quite similar despite not bargaining over wages. It is a notably large organisation in terms of membership.

In the majority of cases, this leads to the workers finding themselves in a situation bearing a fundamental aspect of precarity: they lack a CLA.<sup>8</sup> This favours personalised salaries, bonuses and penalties for productivity, individualisation, and differentiations between workers in the same company, and even those sharing the same desk (as pointed out by Stevens & Mosco, 2010).

A secondary element, connected to the first, is that many companies opt to include their employees in the collective agreement of the Retail Worker Union (that typically includes small retail businesses). The companies thus take advantage of the lack of official IT union recognition in order to negotiate with the unions (like the Retail Worker Union) that have the lowest salary agreements and poorest conditions. Indeed, although the average retail worker's salary has grown much more than that of informatics workers, it still remains at a lower level.

This lead us to a second form of precarity, related to unionisation under an association not linked to the particular field of economic activity, a dislocation which means that not only the General Secretary but all ranks of union official right down to

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<sup>8</sup> The Collective Labour Agreement is a contract signed between workers' representatives and the management of a company or a sector which regulates various aspects of the labour relationship: wages, length of working day, holidays, and so on. The conditions that these contracts establish are the minimum standard, meaning that any contract which is individually negotiated by a worker can improve but not undermine them. Hence, the lack of a CLA in the SIS sector lowers the bar for bargaining by informatics workers in comparison with other sectors. Furthermore, in Argentina since 2003 annual negotiations have been held nationally which update the salary scales of the CLAs in each sector. Due to the lack of a collective organisation with recognition status or a CLA, informatics workers also miss out on these opportunities.

the shop-floor representatives lack knowledge about the activities that the workers are carrying out. When these workers find themselves needing to negotiate improvements to their working conditions, they usually end up doing it outside of the union framework. This is what an interviewee revealed in previous fieldwork:

- *[The Retail Workers' Union] came once, they joined me up, in all honesty I never found out what the point was but ... it wasn't much money and it wasn't clear to us what they'd do for us in exchange, but well [...] I was thinking about asking for more money when my wages didn't stretch far enough, or I thought it didn't, so well, I went but I spoke directly to my boss, we negotiated about the money ...*

- *Outside of the union ...*

- *Maybe with a colleague, to cause a bit of a stir, but that's where it ended.*

*(RM, programmer in a SME, in Ferpozzi & Zukerfeld, 2012:290)*

## **Precariousness: subjectivity and ideology**

In the configuration of the subjective dimension that is associated with precariousness, at least three elements converge: the ideological behaviour of the companies, the internalisation of this approach by the employees and, to a certain extent, by the unions and professional associations as well.

### **Companies**

Companies act in a variety of ways to shape the subjectivities of their workers in the sense of generating precariousness through uncertainty and individualisation. One of these practices concerns the ideological discourse regarding non-compliance with employment laws. As Stevens and Mosco, discussing the Indian SIS sector, put it:

*This state of affairs is exacerbated by industry leaders who express contempt for existing regulations. As a VP with the National Association of Software and Services Companies (Nasscom) stated, 'The Constitution provides all participants in any industry the right to try to assemble. However, the BPO and infotech industry is cost-sensitive. There will be a huge burden in case the industry complies with the employment laws' (Verma, 2004, emphasis added). Acting on this view, the government of West Bengal has banned strikes throughout the state's IT and ITES sectors (The Economist, 2004). This has made the entry of UNITES into that state far more difficult. (Stevens & Mosco, 2010:41)*

Another strategy, whose diffusion is relatively novel, is the appeal to a discourse about 'talent'. It is a remarkable term because it refers to a special ability, but unlike 'skill' or 'competency' (terms that were more commonly used a few years ago), 'talent' carries with it the idea of a 'natural endowment' suggesting an individual ability less influenced by social construction than others. The rhetoric of talent arises repeatedly. For example, this is how the President of CESSI expresses it, not just for his particular sector, but for the economy as a whole:

*Basically what this trend represents is the shift from capitalism to talentism, talent is the new currency which in the knowledge societies of today will differentiate developed countries from those which are not, and which will separate those who have talent from those who do not. (Anibal Carmona, 3 March 2016. Interview in La Nación newspaper)*

Naturally, this means that workers who earn low wages owe their misfortune to their lack of talent, and not to a policy of exploitation. More importantly, since talent is an absolutely individual characteristic, unionisation has no purpose. Workers must perpetually train themselves, or more likely – as, we insist, the term ‘talent’ implies a shift away from the accent on skills – content themselves with the position that they have been assigned in the natural distribution of gifts.

A secondary element lies in the individualisation of wages. Payments for productivity, bonuses and penalties in all their varied forms, as well as project work, do nothing more than generate salaries unique to each individual worker (Rifkin, 1995; Sennet, 1998; Bauman, 2000). This situation, of course, favours the hunt for individual benefits and hinders collective action which the unions could lead (Stevens & Mosco, 2010; Montes Cató, 2010; Del Fueyo, Campilongo & Rud, 2015).

In the same way, delocalisation (whether outsourcing or teleworking) and forms of subcontracting that conceal the labour relationship are widespread practices in this sector. Both, either acting together or separately, generate serious obstacles to collective action. The absence of physical contact, of a shared day-to-day experience, makes it difficult to form the bonds of solidarity that are the basis for any eventual union action.

## **Workers**

Quite apart from any predictable action by the employers’ associations, there is evidence that the modulation of an individualised, atomised, subjectivity is widespread among the workers in the sector. Many of them consider that, in fact, unionism is a tool for the weak, for those ‘who don’t excel’.

*In Argentina, in 2008, an informatics union, even more when the leaders are unknown (in a relatively small environment like informatics), doesn't sound good to me. Unions (in theory) are for people who have no means to defend themselves, who can be easily exploited and manipulated. Today, any informatics worker who feels they're not being respected, or that they're being exploited, or who simply doesn't feel comfortable in their job, has the option to just quit and in less than a week that person will be working in a better place. What a coincidence that usually those who are union activists are people who don't excel in their profession and so they get by with other means. ('Ale', 20 February 2008)*

*Be patient and invest in yourself, train yourself and specialise, there is a lot of material on the web, but the path you follow is up to you. ('ownerpredator', in Ferpozzi & Zukerfeld, 2012:306)*

*The truth is it's the first time I've heard an informatics worker ask for a union, if you're really capable you don't have a problem with pay and if you do have a problem, just resign and leave. ('Tumba' in Ferpozzi & Zukerfeld, 2012:306)*

So, the idea that the solution to wage disputes should be individual and not collective is widely accepted. The logic of entrepreneurship is clearly demonstrated by the idea 'invest in yourself', which is another way of saying that the workers think of themselves as capital.

In the same vein, the quotations above add another important element: moving from one company to another (and eventually returning to the original one) as a mechanism for obtaining a better salary. Interviews with several union representatives<sup>9</sup> corroborated the results of our own fieldwork in pointing to a characteristic pattern whereby workers who want to increase their salary and encounter a negative response from the company they work for seek better-paid employment in another firm. Some time later, they negotiate their return to the original company with the sought-after salary. It is worth noting that this situation of weakness appears in the discourses of precarious workers in an inverted way, being interpreted as a strength. Another point worth highlighting in this context is the subjective tension between thinking of oneself as a worker (in a sense close to that of a manual worker) versus a professional (in a sense related to creativity, autonomy and being highly qualified). Precisely because a large proportion of Argentinian informatics workers lack formal qualifications (Zukerfeld, 2014), in many cases the employers' strategy of discursively establishing a hierarchy could be interpreted as an invitation to separate oneself from the mass of unqualified workers in order to stand out.

## **Unions and professional associations**

At first glance, it could seem as if workers' collective organisations are, by definition, resistant to the processes of precarisation. However, although that is the norm, we can observe contradictory tendencies. Below we briefly review some of them.

The first notable aspect is that the collective organisation with the greatest number of affiliates is not a union, but the Argentinian Professional Association of Informatics Sciences (see Note 1). This reflects the tension mentioned above between informatics technicians as professionals and as workers. In an interview, the president of the Association, Carlos Tomassino, gave us several relevant pieces of information. First, Association members are, to a significant degree, salaried workers employed by companies (and not self-employed professionals, as might be expected). In other words, they are employed workers who prefer, in practice, to come together as independent professionals, in agreement with the management ideology currently in vogue. Second, as regards qualifications, the Association is not exclusively for university graduates, since it awards aptitude certificates to those lacking a formal qualification. Thus, we find two displacements (which are relevant to our analysis) in relation to the normal functions of professional associations: employees without a university degree can join,

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<sup>9</sup> Personal interviews with Ezequiel Tosco, Assistant Secretary of the AGC, and Mauro Campilongo, Communications Secretary of the Informatics Union.

and often do so on a not insignificant scale. On the other hand, as our interviewee clearly stated when asked to comment on the evolution of wages in the sector, 'the Association is not interested in salary issues. That depends on each member, on their talent, their skills' (Carlos Tomassino, personal interview). Thus, the ideological discourse of individualisation surfaces even in the workers' most popular collective environment.

Another important aspect concerns the unions. When analysing the websites of the most active unions with the highest number of members (UI, AGC, Sutira), a tab labelled 'vision, mission and values' can be found on all of them. It is noteworthy that this declaration of objectives of the organisation is not present for the other unions, ie, non-SIS unions. This category has clearly been imported from the business world and reflects an internalisation of corporate values. In a management study, Bart (1997) identifies five functions of such 'mission statements'. Although they are all considered specifically in relation to the business sphere, the fourth of these is defined as being to '... enable a better control over employees' (Bart, 1997:10).

Of course, the inclusion of these management concerns in the presentation of union organisations should not be exaggerated, but it is useful to bear them in mind in order to understand that even organisations that are supposed to represent workers' interests find themselves under pressure from the ideology of entrepreneurship and autonomy.

## Conclusions

This study started with the characterisation of two contradictory tendencies in the Argentinian SIS sector: on one hand, a growth in all economic variables in the sector, including but exceeding employment rates, and, on the other hand, a fall in the real purchasing power of average wages for registered workers in the private sector. These two tendencies, incomprehensible from the standpoint of neoclassical economic theory and contrary to management ideology, can be explained by the combined action of diverse trends that can be understood using the concepts of precarity and precariousness (Armano & Murgia, 2014) among software workers.

Along with the fall in purchasing power of wages in the sector, remarkably low union density and lack of collective representation are also major factors in producing precarity. Therefore, we find two related tendencies: on one hand, the absence of unions with recognition status deprives workers of a collective representation which could regulate working conditions and favours individual negotiation. On the other hand, companies take advantage of this by negotiating with external unions that have worse agreements. Representation by organisations meant for other economic activities provokes a situation of such estrangement that the workers opt for negotiating outside of the union framework. Both these elements favour a personalised salary, productivity bonuses and penalties, individualisation, and differentiation.

In relation to the subjectivity of the workers, the modulating action of the informational capitalist ideology produces several fundamental displacements that are useful for understanding their precariousness. Even though here we have studied them in relation to software workers, in future studies it would be useful to research their extension to other forms of so-called 'knowledge work'. We can summarise these movements around the two related displacements (that are, in fact, uncertainties).

Firstly, a shift is produced from what is perceived in other sectors as a collective problem (the struggle for better wages and working conditions) towards an individual one (continuous development, talent, salary increases through flipping from one job to another). Secondly, there is a displacement from self-identification as a waged worker to a self-image as an independent, qualified professional.

These uncertainties regarding identity configure a situation of precariousness, and are expressed not only in the ideological discourses and practices of the companies and in the subjectivities of the workers, but also – to a greater or lesser degree – in the very tools of the unions and associations that struggle against them.

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