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Notes on Some Features of Knowledge Work: A Social Inquiry Into Knowledge Workers in Turin

“When you have forded the river, when you have crossed the mountain pass, you suddenly find before you the city of Moriana, its alabaster gates transparent in the sunlight, its coral columns supporting pediments encrusted with serpentine, its villas all of glass like aquariums where the shadows of dancing girls with silvery scales swim beneath the medusa-shaped chandeliers. If this is not your first journey, you already know that cities like this have an obverse: you have only to walk a semi-circle and you will come into view of Moriana’s hidden face, an expanse of rusting sheet metal, sackcloths, planks bristling with spikes, pipes black with soot, piles of tins, behind walls with fading signs, frames of staved-in straw chairs, ropes good only for hanging oneself from a rotten beam. From one part to the other, the city seems to continue, in perspective, multiplying its repertory of images: but instead it has no thickness, it consists only of a face and an obverse, like a sheet of paper, with a figure on either side, which can neither be separated nor look at each other.”

– Italo Calvino, *Invisible Cities*

1 Introduction

This article summarises the results of an empirical investigation into the conditions and representations of knowledge workers in Turin.¹ The article begins by discussing some theoretical aspects of

¹ This empirical research and qualitative inquiry into knowledge work in Turin was recently published, with a preface by Sergio Bologna, as *Precarietà e innovazione nel postfordismo. Una ricerca qualitativa sui lavoratori della conoscenza a Torino* (‘Precariousness and Innovation in Post-Fordism’). The book is free to download

the research framework, such as the concept of knowledge work, before analysing the investigation's empirical findings.

With globalisation, the system of Fordist production and regulation was first frayed, then fragmented, and finally *liquefied*,² giving rise to what Suzanne Berger has aptly named the “Lego model” of flexible global enterprises.³ From the capitalist point of view, “[d]e-centred people and intelligences are far better than large bureaucratic organisations at facing uncertainty, the demand for variety, variability and indeterminacy”,⁴ i.e. they are better at managing risk.⁵ “With this new organisational model a company tends to become virtual in space and time. Becoming virtual enables it to have an e-mail address and a small physical space where a small amount of people work whilst the bulk of its productive activity is distributed in time and space, through connections, commissions and contracts with other companies and subcontractors.”⁶

under a Creative Commons licence: [http://www.ilibridiemil.it/index.php?main_page=product_book_info&products_id=236] (retrieved 6 October 2011).

² Zygmunt Bauman, *Liquid Modernity*, Cambridge: Polity Press, 2000.

³ Suzanne Berger, *How We Compete: What Companies Around the World are Doing to Make it in Today's Global Economy*, New York: Doubleday, 2005.

⁴ Enzo Rullani, *Economia del rischio e seconda modernità*, in: Stefano Maso (ed.), *Il rischio e l'anima dell'Occidente*, Venice: Cafoscarina, 2005, p. 199.

⁵ This molecularity of the productive fabric is especially evident in the case of the Italian economy, which is characterised by a higher number of micro-enterprises than other advanced economies. In Italy, there exist 430,000 firms employing between one and nine workers; the corresponding figures for France, Spain and Germany are 212,000, 173,000 and 118,000, respectively. The proliferation of small enterprises is an effect both of delayed economic development and of the extensive use made of delocalisation and subcontracting, practices that aim to undermine shop floor resistance and reduce production costs. This highly modern process has not involved the disappearance of the large firm; rather, the large firm has reorganised itself, segmenting the elements of the productive process and distributing them across the territory so as to yield a myriad of small subcontracting firms that often work for a single client and can therefore be characterised as dependent. Cf. ISTAT (Istituto nazionale di statistica – Italian National Institute of Statistics), *Rapporto annuale* (Annual report), Rome 2009, p. 52.

⁶ Luciano Gallino, *La globalizzazione della precarietà*, in: Ignazio Masulli (ed.), *Precarietà del lavoro e società precaria nell'Europa contemporanea*, Rome: Carocci,

According to Enzo Rullani, this process, the diffusion of risk, develops hand in hand with a far-reaching *transformation of worker identities*. The trajectories of knowledge and work are constantly redefined. “The worker learns how to self-organise the mode and context of her own labour. [...] The economic realm is populated by different and rapidly changing subjects whom no a priori behavioural algorithm can describe.”⁷ Diffuse risk, de-standardisation and the de-institutionalisation of labour trajectories give rise to a *relational form of work that is necessarily, forcibly creative* and requires greater knowledge, a greater willingness to assume responsibility and a more pro-active disposition than earlier forms of waged mass labour.

One feature of the debate on *knowledge work* is that divergent definitions of the concept are often used indiscriminately.⁸ The most widely used notion of knowledge work, developed by Peter Drucker,⁹ emphasises the *subject of labour*, highlighting the knowledge input and output produced by *knowledge workers*. Another definition was developed by Federico Butera and Sebastiano Bagnara; it refers to the workers’ professional status (occupational

2004, pp. 14–15.

⁷ Rullani, *Economia del rischio* (as cited in note 4), p. 201; id., *Economia della conoscenza. Creatività e valore nel capitalismo delle reti*, Rome: Carocci, 2004; id., *La fabbrica dell’imateriale. Produrre valore con la conoscenza*, Rome: Carocci, 2004.

⁸ For critical overviews of the notion of knowledge work, see Sergio Bologna, *I lavoratori della conoscenza e la fabbrica che dovrebbe produrli*, [http://www.ospiteingrato.org/Arretrati/arretrati_05_01.html] (retrieved 6 October 2011); id., *I lavoratori della conoscenza fuori e dentro l’impresa*, in: *Annali di storia dell’impresa*, 17 (2006), pp. 327–359; id., *Ceti medi senza futuro? Scritti, appunti sul lavoro e altro*, Rome: DeriveApprodi, 2007; id., *Uscire dal vicolo cieco!* [<http://www.lumhi.net>] (retrieved 6 October 2011); Carlo Formenti, *Cybersoviet. Utopie postdemocratiche e nuovi media*, Milan: Cortina Raffaello, 2008; Stanley Aronowitz, *The Knowledge Factory: Dismantling the Corporate University and Creating True Higher Learning*, Boston: Beacon Press, 2000.

⁹ Peter Drucker, *Knowledge Work and Knowledge Society: The Social Transformations of this Century*, paper presented at the John F. Kennedy School of Government, Harvard, 4 May 1994.

placement). Butera and Bagnara stress that the past decade has seen the occupational groups they associate with knowledge work expanding significantly across all western countries. Yet despite its practical advantages, Butera's and Bagnara's definition of knowledge work, with its emphasis on 'occupational placement' and the technical composition of the workforce, fails to recognise knowledge workers' 'agency' and subjective configuration. Carlo Formenti has offered a definition of knowledge work that emphasises workers' socialisation through network technologies and their interactive use of knowledge on the Internet.¹⁰ This definition is far narrower than that of Butera and Bagnara; by Formenti's definition, only the elite of Internet workers should be considered knowledge workers.

A number of anglophone authors such as Richard Florida have evoked a mythical e-topia of creativity and mobile technology.¹¹ The widespread rhetoric of the 'creative class' contrasts with that of 'net-slaves' and the 'cybertariat' or 'web-precariat', which portrays Internet workers as paradigmatic victims of the culture of flexible work and de-regulated labour markets.¹² The two stereotypes have developed in parallel to one another. The investigation presented here avoids both by emphasising the ambivalence of knowledge work as it results from the de-institutionalisation of labour and the spread of risk. While this process also concerns other forms of wage labour, it becomes especially striking where it concerns the specific modalities of knowledge production.¹³

¹⁰ Formenti, *Cybersoviet* (as cited in note 8).

¹¹ Richard Florida, *The Rise of the Creative Class and How it's Transforming Work, Leisure and Life*, New York: Basic Books, 2002; id., *The Flight of the Creative Class: The New Global Competition for Talent*, New York: Harper Business, 2005.

¹² Bill Lessard / Steve Baldwin, *Net Slaves: True Tales of Working the Web*, New York: McGraw Hill, 2000.

¹³ This notion of knowledge work has an orienting function within the fieldwork undertaken. In order to maintain the explorative character of the fieldwork, the concept is not operationalised.

The investigation starts from specific, situated instances of knowledge work and attempts to identify typical features of knowledge work on that basis.¹⁴ While several of the studies mentioned have produced accurate data,¹⁵ there are still very few in-depth analyses of the experiences of the subjects involved and of their self-representations in particular.

2 Social Inquiry: Research Design and Methodology

As far as its research objectives are concerned, the investigation aimed at a qualitative analysis of knowledge workers' subjectivity, to be situated within the broader debate on the subject. The main methodological reference points were Bourdieu's theory of 'practical reason'¹⁶ and the Italian tradition of social inquiry¹⁷ and *co-research*.¹⁸

The investigation was intended to critically survey experience and subjectivity within the knowledge work associated with the Internet and the new media in Turin. From an organisational point of

¹⁴ Sergio Bologna has developed a thorough analysis of these issues in the works cited in note 8.

¹⁵ Stephen R. Barley / Gideon Kunda, *Gurus, Hired Guns and Warm Bodies: Itinerant Experts in a Knowledge Economy*, Princeton: Princeton University Press, 2006.

¹⁶ This approach recognises the primacy of *relations* and *practices vis-à-vis values* and *strategies* when it comes to interpreting social reality. Bourdieu argues that one needs to pay attention to instances of *habitus*, or to systems of durable and transferable dispositions, structures predisposed to shape action and thought. Bourdieu's relational perspective breaks with a whole range of powerful dichotomies: individual / society, rational / irrational, objective/subjective. See Pierre Bourdieu, *Practical Reason: On the Theory of Action*, Stanford: Stanford University Press, 1988.

¹⁷ For a paradigmatic example of social inquiry, see Franco Alasia / Danilo Montaldi, *Milano, Corea. Inchiesta sugli immigrati*, Milan: Feltrinelli, 1960. For a historical reconstruction of this methodology and reflections on its contemporary relevance, see Gianfranco Fiameni (ed.), *Danilo Montaldi. Azione politica e ricerca sociale*, Cremona: Biblioteca statale, 2006; Bianca Beccalli, *I quaderni rossi e lo sviluppo della sociologia in Italia*, in: Enrico Pugliese (ed.), *L'inchiesta sociale in Italia*, Rome: Carocci, 2009, pp. 27–37.

¹⁸ Romano Alquati, *Per fare conricerca*, Turin: Velleità Alternative, 1993.

view, these new *professional worlds*¹⁹ are characterised by networks and informality. Paths of experience can no longer be drawn up *ex ante*: initiative is handed back to the individual and informal working relations develop.²⁰

The qualitative approach was deemed more appropriate to the study of subjectivity than surveys or the use of quantitative tools, given that it provides participants with the opportunity to assign meaning and report their personal experiences in their own terms rather than by means of set categories. The investigation used quantitative methods and secondary data only in a supplementary way and to the extent that they allow for reconstruction of the socio-occupational framework within which subjectivity is embedded.

The semi-structured interviews narrate the work experiences of self-employed professionals and micro-enterprises, but also of short-term contract and project contract workers, consultants and occasional collaborators: a universe of temporary, mobile contracts which may transition rapidly into one another and sometimes exist side by side. 'Project' work may correspond to a subjective choice on the part of the professional, that is, to a particular socio-occupational mentality,²¹ rather than being imposed by market forces only. The decision to include individuals who have made such a choice in the investigation corresponds to a specific selection criterion. Such individuals are part of a continuum that includes other forms of temporary work.

The empirical research was limited to the metropolitan area of Turin. It rested on two distinct methods of data collection and ana-

¹⁹ Barley / Kunda, Gurus (as cited in note 15).

²⁰ Ida Regalia, *Al posto del conflitto. Le relazioni di lavoro nel terziario*, Bologna: Il Mulino, 1990; id. / Maria Elisa Sartor, *Le relazioni di lavoro nel terziario avanzato*, Milan: Egea, 1992.

²¹ Sergio Bologna / Andrea Fumagalli (eds), *Il lavoro autonomo di seconda generazione. Scenari del postfordismo in Italia*, Milan: Feltrinelli, 1997; Andrew Ross, *No-Collar: The Humane Workplace and Its Hidden Costs*, Philadelphia: Temple University Press, 2004; Pekka Himanen, *L'etica hacker e lo spirito dell'età dell'informazione*, Milan: Feltrinelli, 2003.

lysis: (i) a *desk* part conducted in the form of a survey of secondary sources, including the reinterpretation of research data and documentary sources,²² with the aim of providing a frame of reference relevant to Turin's position within the supply chains of the knowledge economy and Web-based culture; (ii) a *field* part, based on direct sources. This allowed for the collection of first-hand information through the conducting of interviews. The field research included interviews with privileged observers;²³ this had the preliminary function of orienting and framing the subject matter by providing a descriptive scenario, as well as access to the field. It allowed for the identification of 39 knowledge worker profiles – both male and female – and of micro-enterprises associated with the five *supply chains* to be distinguished within the knowledge economy's world of technological, cultural and creative production: (i) information technology and networks; (ii) Internet-based industry; (iii) design, graphics, photography, event staging and contemporary art; (iv) audiovisual and other multimedia formats, publicity, communication, advertising, film; (v) training and research, publishing and translation activities.

The term 'supply chain' refers here to economic areas that are largely unstructured and frequently organised on 'horizontal' lines rather than vertically.²⁴ We typically encounter constellations of more or less loosely interconnected actors, rather than genuine productive systems characterised by a high degree of formalisation

²² For more on the recent debate about Turin's post-Fordist transition, see Giuseppe Berta / Angelo Pichierrì (eds), *Libro bianco per il Nord Ovest. Dall'economia della manifattura all'economia della conoscenza*, Rome: Consiglio italiano per le scienze sociali, 2007, especially the chapter titled 'Il Nord Ovest e la società dei servizi', pp. 37 ff.

²³ With experts, authors and critics associated with cultural institutions, universities, polytechnics, cultural foundations and cultural bodies such as Turin's film commission.

²⁴ Manuel Castells / Peter Hall, *Technopoles of the World: The Making of Twenty-First Century Industrial Complexes*, London: Routledge, 1994; Saskia Sassen, *The Global City*: New York, London, Tokyo, Princeton: Princeton University Press, 1991.

and a developed technical division of labour. The term ‘supply chain’ has been used to indicate that the occupations dealt with are situated within global economic processes, notwithstanding the fact that they display a cultural, relational, communicative and cognitive content.

The choice of conducting a considerable part of the interviews during public events, such as *Virtuality* and *Linux Day* (devoted to information technology) and *Artissima* and the *Festival del Cinema* (devoted to the visual arts and graphic design),²⁵ was based on the observation that such events emblematically represent Turin’s difficult post-Fordist transition, which has seen the city transform from a place principally oriented to the production of durable goods to a factory for creative industries, services and ephemeral goods.

However, the ‘supply chains’ mentioned are far from exhausting the entire knowledge economy of Turin. My intention was not, then, that of reconstructing the knowledge economy as a whole; I was concerned, rather, with compiling a repertoire of common themes. In order to adequately situate my research findings, I will now present some reflections on the development of the knowledge economy in post-Fordist Turin, as well as a selection of the results of my desk research.

3 Findings: The Role of the Knowledge Economy in Post-Fordist Turin

During the 1990s, Turin’s ‘tertiary’ transition seems to have been driven by two converging meta-level processes. On the one hand, hierarchies were eliminated within large firms (in parallel with the outsourcing of various tasks); on the other hand, creative activities

²⁵ Each of these public events has a website: [www.virtualityconference.it]; [www.Turinlibera.org/linuxday.php]; [www.artissima.it]; [www.Turinilmfest.org] (retrieved 6 October 2011).

associated with the new technologies and with self-employment proliferated across the city.²⁶

This holds primarily for activities linked to the most representative economic sectors of the region, i.e. services for productive industries. The two processes mentioned were shaped by a variety of factors: outsourcing of services previously provided within the factory; development of new electronic and information technologies and their application within the productive cycle; expansion of immaterial assets (research, project work, design, training, communication, finances) and their incorporation into the valorisation chain. Turin's transition to an economy dominated by the tertiary sector clearly displays a 'technological' and 'industrial' character, unlike the transitions of other cities such as Milan or Rome.²⁷ For example, the Turinese design sector continues to be dominated by large companies working primarily for industry.

Since the 1980s, a tendency common to Italy as a whole has been observable in Turin and the Piedmont region (albeit with a slight delay compared to other regions), namely that of 'tertiarisation', or the shift from manufacturing to service industries. The automobile industry has undergone an especially marked transformation. Its supply chains have for some time displayed a 'mixed' character, with industrial activities flanked by tertiary activities and manufacturing *tout court* supplemented with advanced customer service, new technological, research, management and financial functions and activities associated with 'creativity' (design, communication, etc.). According to data published by the *Osservatorio socio-economico provinciale di Torino* (Socio-Economic Observatory of the Province of Turin), the two decades between 1981 and 2001 have seen the service sector becoming increasingly prominent within the regional productive system. Within the Piedmont region, the rise in employment in the tertiary sector is fully due to a rise in employ-

²⁶ Berta / Pichierrì, *Libro bianco* (as cited in note 22), p. 37.

²⁷ Ente di Ricerche Economiche Sociali del Piemonte (ed.), *Torino e il Piemonte tra il presente e il futuro*, Turin: IRES, 2003.

ment in the service sector, whereas the development of commercial activities has remained relatively constant. The general trend was already evident during the 1980s, although it has become more marked since the second half of the 1990s. The percentage of added value attributable to industry has declined from 46.9 percent in 1981 to 32.4 percent in 2001. According to Italy's National Institute of Statistics (*Istituto nazionale di statistica*, ISTAT), the Piedmontese manufacturing sector has experienced a 16 percent decline in the number of factories and a 31 percent decline in employees, while its share in the overall number of persons employed outside agriculture has declined from 46 percent to 31 percent. By contrast, the share of added value produced by the tertiary sector has increased from 49 percent to 66 percent, mainly thanks to the growth of business and personal services. The number of workplaces in the tertiary sector has increased by 39 percent, the number of employees by 29 percent. The tertiary sector's share of overall employment has increased from 46 to 60 percent. In sum, the Piedmont region has undergone tertiarisation by markedly diversifying its productive activities while retaining some of its past characteristics, as evident in the relative importance of business services, as opposed to personal services.

More about how these developments play out in Turin and its province can be learned from some of the data on the development of various professions. In particular, it is worth pointing out the rise in the number of technicians, professionals and managers (although these professions do not encompass the entire phenomenon of knowledge work). Recent research based on data gathered by the *Osservatorio regionale del mercato del lavoro* (Regional Labour Market Observatory, ORML) shows that,²⁸ within the context of a significant increase in employment (nearly 80,000 units in 2007), the past ten years have seen an increase in the number of skilled employees (150,000 workers) and a corresponding decrease in the

²⁸ Salvatore Cominu / Stefano Musso, *Lavoratori della conoscenza. Protagonisti, politiche, territori*, Turin: Torino Internazionale, 2009.

number of unskilled and semi-skilled workers.²⁹ In only ten years, skilled labour has increased from 30 percent to 42 percent of total employment.

The figures show that the past decades have brought changes in the composition of the Turinese workforce, i.e. an increase in the total number of technicians, professionals and managers, or of workers with a relatively high level of education. This has been accompanied by a significant reduction, both in absolute and in relative terms, of unskilled mass work. The fastest growing professional group within the overall category of knowledge workers is that of semi-qualified technicians; the group of highly qualified and creative professions has not expanded to the same degree. Thus, while the overall context has changed, there remains within knowledge work an element of newly Taylorised work. Workers charged with such work follow strict technical protocols; they are easily replaceable and the knowledge they dispose of may rapidly become obsolescent.

4 Results of the Social Inquiry: A Repertoire of Substantive Categories

While my sample is not significant in terms of its breadth or representative of the overall workforce, it has proven useful for framing the socio-professional models and cultures to be found across the new professions.³⁰ As far as the findings are concerned, inter-

²⁹ Cominu and Musso's inquiry uses data relevant to Turin and its province, gathered by the *Osservatorio regionale sul mercato del lavoro* (ORML); see [http://extranet.regione.piemonte.it/fp-lavoro/centrorisorse/studi_statisti/index.htm] (retrieved 6 October 2011).

³⁰ As regards the *basic characteristics of the sample*, the cases presented are useful in that they highlight elements both of *homogeneity* (the features of a common socio-professional world) and of *variation* (i.e. they allow for a differentiated description of specific cases). A *progressive construction of the sample* has been undertaken using the *snowballing* method in cases relevant to a given socio-professional environment, place or event (see Barney G. Glaser / Anselm L. Strauss, *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Chicago: Aldine, 1967). In

pretation of the empirical qualitative research has produced a repertoire of *substantive categories*: categories of social discourse by which individuals express their practical logic and represent the situations they experience, their activities and projects. The substantial categories were obtained through an internal analysis of individuals' statements.

4.1 Tensions Between Work Optimization and Work Reduction

One fundamentally new feature of knowledge work is that knowledge is no longer incorporated only in work practices and ma-

particular, the sample reveals: homogeneity of activities and of the relationship with digital technology; homogeneity as regards the places and work environments in which the interviews were conducted (the interviews were conducted largely in the course of ITC and new media events, and / or in environments linked to the corresponding supply chains); homogeneity in educational background (university level); variety as regards age (most interviewees were between 25 and 45 years old), gender (36 percent of the interviewees were women) and the interviewees' socio-economic and professional condition (income level and contract type). The sample includes a range of different occupations. Within the new media environment, I selected working profiles such as those of the software engineer, designer, web artist, project manager, web architect, blogger, graphic designer, content creator, translator and web journalist. The key criteria by which the interviews were structured are those of *specificity* and *narrativity*. The specificity criterion goes back to ethno-sociological method and the need to dispose of a range of specific sets of knowledge about the subject's condition (foreknowledge, collection of preliminary data on the subject, pilot interviews); this knowledge is then brought to bear during the interview. Certain themes recur throughout the interviews. The first theme is that of *knowledge and skill acquisition* (both formal and informal). Next comes the question of *transitions* and of how *temporary and contingent commitment* and *task orientation* are experienced; all of these affect workers' self-perception, as individuals experience the difficulty, if not the impossibility, of arranging their experiences into consistent narratives. Finally, the interviews explore some of the difficulties the interviewees encounter in imagining their own futures and the implications for the transformation of Turin. As regards the interpretive criteria employed, the interviews have been treated as 'stories' rather than as 'histories'; they are valuable in that they report narratives meaningful to the subjects' lives, not as objective chronicles of events. See Daniel Bertaux, *Les récits de vie*, Paris: Nathan, 1987; Davide Sparti, *Epistemologia delle scienze sociali*, Rome: NIS, 1995.

chines but rather situated in the intermediate space of the network; this development gives rise to new expectations and new behaviour. In knowledge work, *cooperation* frequently occurs via linguistic communication as mediated by codified, digital languages. We might say that with *digital technology*, knowledge has re-territorialised itself on an intermediate organisational level, situated between the human level and the machine level; this is also where *communication, cooperation and self-management* occur.³¹

In this regard, Derrick De Kerckhove has emphasised that blogs, for example, do not so much represent the publication of a diary as the publication of an individual's network. We are faced, then, with a profoundly connective creature: not *collective*, not *private*, but profoundly *connective*.³² A blog is more than a personal website; it is a sort of constantly updated journal that is *open to all* and functions by virtue of a *specific type of technology*. The blog presents thoughts, images, videos and whatever else the imagination may come up with. According to Vanni Codeluppi, the blogger *does not think of herself as belonging to the system of the media* or as simply filling a space with content. *Instead*, she thinks of herself as communicating with other persons, and in fact, the readers of blogs are quite numerous: more than one hundred million people every day.³³

This example shows that, differently from the Taylorist system, the *forms of coordination* are not *merely* incorporated in the mechanical medium (an incorporation that renders them external to human activity); they *also* depend on the types of interaction that are possible and on the CMC (computer-mediated communication)³⁴

³¹ For a more in-depth account, see Sergio Bellucci, *E-Work*, Rome: DeriveApprodi, 2005, especially pp. 55–70.

³² Derrick De Kerckhove, *La civilisation vidéo-chrétienne*, Paris: Retz, 2001.

³³ Vanni Codeluppi, *La vetrinizzazione sociale. Il processo di spettacolarizzazione degli individui e della società*, Turin: Bollati Boringhieri, 2007.

³⁴ Writing an email or sending a text message has become natural to us. Both activities are forms of interaction that rest on CMC interfaces; despite first appearances, they are more than simply the behaviour of an isolated individual. Numerous studies have been devoted to this complex issue, whose technical aspect concerns the difference between F2F (face-to-face) and CMC communication; see for exam-

interfaces that are integrated in network technology. Consequently, they can give rise both to forms of hierarchy and to forms of co-operation.

Cooperation is *centred* on a – frequently imperceptible – systemic structure: a structure of communication that is not geared to the linear and disjointed succession of single operations, but rather allows for an ensemble of multilateral forms of behaviour, characterised by varying degrees of hierarchy. Differently from the past, the *outcome is open (a product of successful interaction and not simply of the programme)*, and it cannot simply be reduced to the sum of singular acts and sequential phases.

“We do communication, and so our work can’t just be an exercise in personal and professional development. You’ve done half the work and the other half has to be that of circulating it, because we believe a great deal in the Net. You toss it out and who knows what’ll come back!” (Catia, 30, freelance photographer)

The spread of the Internet and of the digital media has favoured the development of networks of interactive communication,³⁵ capable of *connecting*, at any moment, the ‘local’ and the ‘global’, thereby giving rise to new ways of living and working. The more an individual cultivates a project of personal and professional autonomy, the greater the use they make of mobile technology.³⁶ With regard to personal autonomy, this represents a major change, and with regard to precariousness, it entails that workers are rewarded more in terms of the results of their work than in terms of the time spent at work. The mobile work described by the interviewees is character-

ple the study by the Human Computer Interaction Laboratory of the University of Udine, available at [http://hcilab.uniud.it/publications_it.html] (retrieved 6 October 2011).

³⁵ Manuel Castells, *The Rise of the Network Society*, Cambridge: Blackwell, 1996.

³⁶ Marike Finlay, *Powermatics: A Discursive Critique of Communications Technology*, London / New York: Routledge / Kegan Paul, 1987; Paolo Ferri, *La rivoluzione digitale. Comunità, individuo e testo nell’era di internet*, Milan: Mimesis, 1999.

ised by a constant and irresolvable tension between work optimisation and work reduction.

On the one hand, mobile work does indeed appear liberating; it gives workers greater autonomy. The velocity of digital technologies and the universality of the codes used allow for a communication unhampered by the limitations of space and time. On the other hand, mobile work also entails an impoverishment and regimentation of work, with the latter being cast into the abstract, uniform, *de-spatialised* and uprooting mold of digital codes.³⁷ The most visible effects are saturated work schedules, disregard of formal contractual rules and time limitations, the omnipresence of ‘the message’ and the loss of a clearly defined workspace, which yields to the ‘Web.’

“First of all, we don’t have an office, no secretaries. And we *try* to manage without them.” (Alberto, 40, co-owner of a software firm)

“I have a lightweight laptop that weights 1.8 kilos, I have a smart-phone, I’m moving freely.” (Claudio, 32, self-employed web designer)

Flexible technologies dissolve the boundary between working time and life time, so typical of the Fordist world. The distinctions between various physical spaces and between day and night are also dissolved. It is no coincidence that some interviewees no longer distinguish between ‘being at home’ and ‘working.’ Knowledge work is more flexible and thus less dependent on spatial and temporal factors than Fordist manual work was. Working time seems to have become introjected; it is subject to little external control and it is *extended, even rendered indefinite*,³⁸ in ambivalent ways. The boundary between work and existence has collapsed in favour of work, not only obliging individuals to work on weekends and holidays, but also shaping their mindsets.

³⁷ On de-spatialisation, see David Harvey, *The Condition of Postmodernity*, New York: Blackwell, 2004.

³⁸ See Bologna / Fumagalli, *Il lavoro autonomo* (as cited in note 21).

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“Damn mobile! I can practically always be reached.” (Catia, 30, freelance photographer)

“Personally, I live these issues, even in my personal life, right down to the films I watch at the cinema and the DVD or magazine I buy. There’s no discontinuity with my personal life.” (Marco, 35, co-owner of a software firm)

4.2 The Informality of Social Relations, Structures and Processes

What are the essential characteristics of the socio-technological network³⁹ and the relations associated with it? From an organisational point of view, such relations are more akin to connections and contacts within a socio-professional community and milieu-based bonds of mutual recognition⁴⁰ than to structured and formalised relationships.

“Once you’re able to do this job well, the important thing is to constantly widen your contact base – which is something this environment allows you to do.” (Claudio, 32, self-employed web designer)

Bonds of trust are not limited to the working collective *strictu sensu*, but rooted in the magma of social cooperation. Durable social bonds relevant to worker profiles and career paths are often found in a network situated outside the workplace. When one considers only individual work experiences, the social bonds appear fragmented; looking in depth at where those individual experiences are situated, one discerns a continuity of ideal reference points distributed across the metropolitan area.

In order to become productive, knowledge work requires a ‘space’; it needs to develop a network, a web of relations. Failing this, i.e. when it remains limited to one individual, it may consti-

³⁹ Clay Shirky, *Here Comes Everybody: The Power of Organizing Without Organizations*, New York: Penguin, 2008.

⁴⁰ Alessandro Pizzorno, *Il velo della diversità. Studi su razionalità e riconoscimento*, Milan: Feltrinelli, 2007.

tute a personal valorisation process, but it does not yield exchange value for accumulation, i.e. ‘commodities.’ Knowledge develops within spatiality and within networks, within internal hierarchies and between the various nodes of the network.

Indeed, the ‘network’ is best read in terms of connection and disconnection. Connection is the creation of a temporary bond based upon a common objective and upon recognition of a temporary identity, or rather of a temporary project. The bond is extremely tenuous and can be quickly ‘disconnected’ when necessary.⁴¹ The category of contingent, ‘weak ties’ (Mark Granovetter) is amongst the most important to emerge from the interviews.

“See my colleagues? That one, for example, I met him on a blog. Just imagine, he lived around the corner from my house; now he’s one of the two managers of the project I work as an advisor for. The other one is the guy I would like to work with when he goes freelance, one of my writers, who also works as a copywriter for me. See how networks are born?” (Claudio, 32, blogger, content provider and web architect, self-employed)

4.3 Fluid Norms and Making the Most of Contacts

The great ambivalence of these informal, pseudo-‘communal’ networks is related to the fact that the norms and rights laid down in workers’ contracts are not always observed. Often the assignation of work roles and tasks depends, in a fluid way, on the relations created informally at the workplace. Insecurity is thus a pervasive feature of many interviewees’ lives.

“It came very easily. For someone from particular fields, where everyone knows everyone else, where you’re among friends ... Here, everything is attributed to the firm.” (Valerio, 39, freelance researcher)

⁴¹ Alessandro Petti, *Arcipelaghi e enclave. Architettura dell’ordinamento spaziale contemporaneo*, Milan: Mondadori, 2007.

“You can work in an environment where you aren’t asked to do gruelling shifts. But it depends on how a person manages to fit into the group. It’s strange, but that’s how it is. It’s more like a school class in many ways than a work situation.” (Gabriele, 26, temporary contract work for *Extracampus TV*)

Relational work is a major component of service work, and so behaviour, motivation and social and emotional skills play an important role. Firms attempt to extract value from human capital they have neither cultivated nor paid for, but which they consider part of their own fixed capital.⁴² This human capital is derived from activities associated with largely unremunerated forms of sociation: common, everyday activities that make us capable of interacting, communicating, learning and gaining trust. Networks would seem to ‘compensate’ for losses in worker protection and social security by providing short-term solidarity, but they also exercise a control function.⁴³ Thus workers may feel the need to escape a community logic that involves them bearing a ‘debt of gratitude’ to ‘friends’ who have done them the ‘favour’ of providing them with work.

4.4 Feminisation

According to some authors,⁴⁴ we are dealing with a far-reaching ‘feminisation’ of labour, seen as a key feature of the post-Fordist employment regime. The term ‘feminisation’ is intended to highlight the productive employment of relationality, affect, flexible interaction and care, all of which stem from what is considered the domain of the ‘reproduction of labour power’ and have traditionally been defined as female.

⁴² Daniel Cohen, *Our Modern Times: The New Nature of Capitalism in the Information Age*, Cambridge: MIT Press, 2002.

⁴³ *Ibid.*

⁴⁴ Christian Marazzi, *Il posto dei calzini. La svolta linguistica dell’economia e i suoi effetti sulla politica*, Turin: Bollati Bollinghieri, 1999; Alain Touraine, *Le monde des femmes*, Paris: Fayard, 2006.

“You *have to* always be smiling, never upset – *everything always has to be going well*. You have to always be available. Your availability is total, your cell phone always on. And this is the other, negative aspect: when there’s something you don’t like, you *have to* like it. [...] I’ve spoken at company meetings where it was clear some people simply weren’t competent. Damn. You can’t go there and tell them: “This is not how it’s done; you have to do it this way...”” (Patrizia, 27, software promoter, hostess)

For both male and female knowledge workers, ‘material’ issues are intertwined in a complex way with the provision of cognitive and affective skills. It seems clear that, rather than simply representing a resource, the informality that invests labour relations associated with knowledge has ambivalent implications.

The implications of the ‘feminisation of labour’ are above all of a qualitative nature. What Gilles Deleuze called the ‘becoming-woman of labour’ refers us to a process by which skills and dispositions historically and culturally attributed to women become constitutive features of production. Characteristics that have for centuries defined women’s labour and the modalities of women’s exploitation are now extended to an entire generation of workers. From this point of view, and as Cristina Morini has written, ‘woman’ appears to represent a model that is of growing interest to contemporary capitalism: labour is now characterised by the intensive exploitation of individual knowledge and relational skills, of the emotional aspects of language and the ability to ‘care.’⁴⁵

The historical experience of women’s work therefore becomes a potent analytical reference point for understanding the specific features of contemporary precarity – one that almost seems to entail a social (or even anthropological) paradigm shift. For example, the regime of gratuity that has always characterised women’s domestic activities is today becoming a widespread model for regulating a range of work-related services (e.g. internships). In addition to

⁴⁵ Cristina Morini / Andrea Fumagalli, *La vita messa al lavoro: verso una teoria del valore-lavoro*, in: *Sociologia del lavoro*, 115 (2009).

this, the affective component that has always characterised female activity, both within the family and within extra-familial interpersonal relations, can be discerned today in the relationship between workers and their employers. One need only think of how the low pay received by cognitive and care workers is ‘compensated’ for by personal and human gratification. One more rather obvious analogy might be cited: just as identification with domestic diligence has historically been imposed on women, so workers’ very lives have been set to work in contemporary capitalism.

4.5 Identification and Autonomy

Some interviewees identify themselves with the work they do. They become closely involved with it as it becomes a source of self-realisation and ‘satisfaction.’ A logic typical of the creation of artworks is transposed to the domain of gainful employment, affecting workers’ very sense of identity.⁴⁶

“I think that if someone enjoys what they do, then working two to five hours overtime is no burden.” (Fabio, 29, research fellow at Turin’s polytechnic)

Thus knowledge workers are willing to expend their energy, intelligence and time without any consideration of the immediate financial benefit. A ‘workaholic’ attitude can be found throughout this sector of the labour market. Individuals are willing to surrender rights and even to pay in order to obtain an identity. Individuals working in the knowledge economy, the creative economy and the experiential economy tend to have a passion for their field. Their enthusiasm goes beyond specific projects and frequently relates to the broader development of the Internet and Internet culture. The willingness to learn in the field, face new and unforeseen situations and assume risks represents a fundamental characteristic of the new forms of work.

⁴⁶ See Luc Boltanski / Eve Chiapello, *The New Spirit of Capitalism*, London: Verso, 2005.

“But I don’t know how to do this. – But you can learn how. I say take the job! I’d say that kind of attitude is essential to our work – the attitude that we can do anything or else find someone who can.” (Claudio, 32, self-employed web designer)

Whatever their contractual situation, knowledge workers feel the need to demonstrate to customers and firms that they are always prepared to seize an opportunity to work.

Workers also perceive themselves as ‘creators of meaning’; at the very least, they consider the creation of content to be highly significant within their field.⁴⁷

“We put ourselves to the test, to create a product that has never ... We’d always been people who worked for someone who told us what they wanted, and we gave them our creative and experiential input. But to do something of our own – we’d never done it, and perhaps that was the first time we realised we could.” (Paul, 50, video producer)

Autonomy constitutes a basic characteristic of knowledge work; as such, it makes knowledge work attractive to persons aspiring to enter the field. Knowledge work involves considerable autonomy in the sense that it requires workers to decide how and within what time frame they will achieve their objective.⁴⁸

The frequent transitions that characterise the interviewees’ professional biographies reinforce the notion that one has to be capable of managing oneself and leveraging one’s material, mental and social resources.

“When you’re working to achieve a certain objective, it becomes difficult to go to the customer and say: We’re sorry, the project turned out worse than we expected. You make a commitment and you have to fulfill it. It can be stressful, because you end up working longer hours, to the point where your compensation is no longer adequate.” (Alberto, 40, co-owner of a software firm)

⁴⁷ Marazzi, *Il posto dei calzini* (as cited in note 44).

⁴⁸ Boltanski / Chiapello, *New Spirit of Capitalism* (as cited in note 46).

“We got a big job from a multinational, passed on by another multinational. And of course you’re not a multinational. You work frenetically in that period, with working conditions and a work flow that you’re not in control of. But there, you had to give everything, all fifteen of us; we had to process a staggering quantity of words.” (Diego, 43, self-employed translator)

Workers perceive self-regulation in different ways. Some exercise willpower to control their behavior, their thinking and their actions. Self-evaluation and the ability to clearly define one’s limits are key.

The phenomenon of self-regulation is related to that of workers being rewarded by result, even as working hours, rules and procedures are disregarded. Regardless of the contracts they work under, knowledge workers frequently engage in self-exploitation and lengthen their working hours. This often takes the form of unremunerated work performed ‘voluntarily’ by persons convinced they are doing it for their own good, when in fact they are struggling to meet commitments.

4.6 Transitions and the Sense of Transience

The beginning and the conclusion of projects are central moments in the narratives told by the interviewees. They represent moments of conflict, negotiation, dialogue, growth, learning, social ascent and social exclusion. One has the impression that, subjectively, a great deal is at stake in such moments. The beginning and the conclusion of a project mark incisive turning points; they may indeed constitute veritable ruptures within workers’ careers. Moments of exit and entry have become decisive, where what used to be decisive was the length of time that workers spent within a single employment relation. Linear development, characteristic of former ‘normal’ workers’ perception of their work experience, is replaced by an ‘archipelago’ of experiences and biographical fragments.

“That’s it, that’s the main feature of the work I’ve been doing for the last three years: discontinuity. [...] Every time, the question of what

my future will bring.” (Renata, 38, architect on a temporary contract)

“I reckon our generation has adopted this mindset. We’ve been trained to accept the notion that everything is finite, that you need to live for the moment and just have no way of knowing what will happen later. [...] You can’t get beyond a certain point. Your thoughts reach a barrier too.” (Valentina, 26, call centre worker)

The sense of transience addressed by the interviewees is not simply a matter of discontinuous contractual relations and the fragmented nature of work experiences. It impacts on workers’ selves, leading to an unstable, shifting sense of identity. It also concerns workers’ relationships to others and to changing places, roles and regulatory contexts, thus broadly impacting the *new subjectivity*.⁴⁹ This leads to the difficulty of ‘narrating’ one’s experiences. Knowledge workers’ condition is not to be seen, then, simply as an ongoing pilgrimage from one job to the next; it also involves changes in workers’ self-perception. Work is no longer situated within a career composed of pre-determined stages. The very concept of the career dissolves, giving way to that of a trajectory characterised by numerous transitions.

“We were all workers with temporary contracts. And I must say we liked it that way, in the sense that we hadn’t committed ourselves to a certain future.” (Silvana, 34, temporary contract worker for the *Nettuno* distance learning project)

“After a few years, having learnt many things, I realised that working for this type of company is not really satisfying to me anymore.” (Alessandro, 32, Internet content manager on a temporary contract)

The transient character of work is not necessarily experienced as problematic. The condition of being in a state of constant flux may involve a sense of opportunity as well as one of risk. Moreover,

⁴⁹ On the theme of the new subjectivity constituted by objective contingency and transience, see Boltanski / Chiapello, *New Spirit of Capitalism* (as cited in note 46) and Ross, *No-Collar* (as cited in note 21).

those who find themselves performing work that does not correspond to their background or aspirations are able to avoid becoming identified with that work; they can continue planning for a different future. This ‘liberating’ aspect of the transience of work *directly affects workers’ sense of identity*.⁵⁰ For young workers in particular, the temporary nature of work may involve the possibility of keeping their options open, thus ensuring greater ‘degrees of freedom.’

In effect, knowledge workers’ sense of precariousness differs from that of workers who feel like generic and replaceable elements of the workforce. The key question is whether or not there occurs an (initial or subsequent) *investment in knowledge and cultural capital* that is capable of creating a *marketable professionalism* (even at the cost of transitions that involve searching for job opportunities, moving, seeking further training, etc.): where such an investment occurs, and where it turns out not to have been a mistake (as it sometimes may), we are dealing with a knowledge worker who *uses her autonomy* to search for the work that best corresponds to her skills and aspirations. Where the investment does not occur and the worker disposes only of skills that are easily substituted (skills that correspond to ‘basic training’, even if they are not identical with it), and where the employment contract is a temporary one, the shift to other work will likely take the form not of a fortunate choice but of an unfortunate step backward.

The sense of transience and the absence of long-term employment relations sometimes make strategies of ‘exit’ more attractive to less qualified workers than strategies of conflict or coalition-building.

“It’s the quickest way to solve the problem, especially where project work is concerned, much quicker than discussing what to do, organising protests and so on. I don’t like it? I’m leaving!” (Elena, 25, digital archivist for Italian public television, temporary contract worker)

⁵⁰ Giovanna Fullin / Mauro Magatti, *Percorsi di lavoro flessibile*, Rome: Carocci, 2002.

The distinction between *knowledge workers* and *unskilled workers* (who lack the competitive advantage of professionalism) proves central to understanding contemporary precarity. Within the social group ‘knowledge workers’, those who dispose of *tacit* knowledge, rare, contextual or systemic knowledge and / or meta-knowledge that cannot be acquired through training enjoy a clear competitive advantage over those who dispose only of *replaceable* knowledge: knowledge which may also be specialised (e.g. knowledge of standard technologies), but which is constantly at risk of becoming obsolescent.

Knowledge workers’ sense of precariousness often derives from the mismatch between the work available and their abilities and aspirations. Yet all in all, being able to switch from one employer to another is an advantage. *Reversibility* and *infidelity to employers* are key characteristics of knowledge work; knowledge workers seek to turn the temporary character of their work to their advantage, by leveraging their skills, asserting their independence from the employer and constantly re-negotiating their position. Workers often leave their employer as soon as they get a chance to improve their situation.

“This has happened to me plenty of times. If you want to maintain your position, switch to another employer. I’ve done this to maintain my own professionalism and the values I identify with.” (Alfredo, 44, electronic engineer and database administrator)

Infidelity to employers, *rather than labour conflict*, seems to be typical of knowledge workers. It represents an individualised way of responding to precariousness, a kind of personal risk management. This is one aspect of the new subjectivity that merits further investigation. Where does conflict occur, and where does it become possible, if it has been rendered more difficult in the places where it was formerly observed?

4.7 Fear of Demotion

“In some ways, you begin to see yourself as skipping from stone to stone, all the way down the river.” (Diego, 43, self-employed translator)

The statement expresses the fear of losing socio-professional positions that have been arduously acquired: the fear of retrocession, or of slipping back, perhaps irreversibly, into work that is less professional and less meaningful, and which may be less well remunerated or associated with inferior contractual guarantees. This is the *fear of losing degrees of autonomy*. The fear of retrocession is almost perpetual, and one encounters it throughout the various professional profiles associated with knowledge work (and regardless of the contractual form the employment relation assumes: temporary contract, project contract, self-employment, micro-enterprise). While one certainly needs to pay attention to what is specifically at risk in each individual case, we are dealing here with a sort of common denominator, or with something that characterises the precarity of all the knowledge workers interviewed. None of the interviewees speaks of a leap into the unknown (the Fordist worker’s fear of losing his long-term employment), or of not having the faintest idea of what to do (the experiential horizon of the unemployed person). Rather than this type of catastrophic experience, the interviewees describe something more subtle. Theirs is a specific situation. One encounters the fear of retrocession in people who are convinced that if they were to lose their present work, they could probably find other work reasonably quickly, but who worry that the new work may be *less interesting* and that it may *correspond less well to their aspirations* – that it may isolate them from other workers and involve inferior working conditions, associated with less autonomy. In a world governed by a ‘no risk, no gain’ mentality, *demotion* is the traumatic and highly tangible manifestation of failure. Where knowledge develops at an extraordinarily rapid pace, with new

standards emerging constantly, most people experience significant pressure related to 'keeping up.'

One aspect of the fear of demotion that is not immediately apparent is related to the prevalence of standardised content within the field of knowledge work. Some interviewees addressed the risk of their skills becoming obsolescent. These interviewees were frequently involved in 'fast and dirty' work or worked in the neo-Taylorised niches of intellectual labour, characterised by a mismatch between methods and tasks on the one hand and workers' abilities on the other.

"If I worked one job only, [...] if I could concentrate on one or two research fields, this would allow me to develop a more in-depth grasp of these fields, to familiarise myself with a set of related themes [...]. In fact, when someone works in range of research fields, they're not taken seriously. [...] They're always working in a variety of fields, and what does that mean? That they always have to specialise provisionally and temporarily, in order then to abandon that specialisation and start from scratch." (Giovanni, 29, freelance researcher)

"What's the problem? That the ability to branch out presupposes that you have a solid foundation, on the basis of which you can explore all kinds of new fields. This is what allows you to grow constantly. But if you don't have the ability to establish that foundation, you've got a tree that consists only of branches, without a trunk, and that tree will eventually collapse. Why? Because all you ever get to see is a small part. That's really the underlying problem." (Giovanni, 29, freelance researcher)

"The thing I've noticed – and it's gotten worse during the last few years – is that before I write my research report, *I hardly have time to do my preliminary documentary and bibliographical work. I have very little time to compile my material.* Do you see at what point we've arrived? I have to resort to what is immediately available." (Valerio, 39, researcher)

4.8 (Neo-)Taylorisation

The interviewees describe phenomena associated with neo-Taylorisation, or with the ‘soft’ regimentation of work and of the knowledge it produces. But knowledge work also involves a series of supporting tasks whose intellectual content is openly ‘Taylorised.’ In these cases, we are not dealing with ‘soft’ forms of regimentation, but with *industrialised* modes of work.

“Most importantly, they were really hard on you there, and they made you understand that things were organised in a top-down manner and that you were in trouble if you didn’t do your job properly. [...] Lots of set procedures and rules.” (Elena, 25, digital archivist)

“We were always under surveillance. In the call centre, [...] there’s a whole series of rules you need to follow when it comes to the services you provide to the client, the time you spend with them, the amount of telephone calls you receive. The reality is that you’re being monitored, even if it’s against the employment legislation. In theory, they shouldn’t be able to monitor you in that way, but we knew they kept track of everything we did. [...] We received sham phone calls. It was a way of spying on us.” (Valentina, 26, temporary worker in a call centre)

This is Taylorism applied to the specific context of the call centre. It needs nevertheless to be emphasised that even these Taylorised areas of knowledge work display some new features, such as the expectation that workers will be proactive, and the reliance on unremunerated skills.

“We dealt with people who were abroad and had trouble with their car, or health problems. We worked by telephone, from a call centre. [...] The workers in the international department *all had university degrees*. Some were foreigners who *spoke perfect English*.” (Frank, 40, English consultant at the University of Turin, on his experience of working in a call centre)

“It was not a routine. It was often difficult work. Today people who work in call centres are often *left to their own devices*. Our training

was *not adequate* and you needed to have some knowledge of certain products that had never been properly explained to us. You had to *improvise* a bit, and most of all buy time, never answer a question when in doubt. We were dealing with people who were abroad and in some sort of trouble. Often the fact that they did not speak the language of the country they were in created an additional sense of unease, over and beyond the problem with the car or the problem of the person with health issues.” (Frank, 40, English consultant at the University of Turin, on his experience of working in a call centre)

“They insisted very strongly that we needed to convince them one way or another. [Question: By means of sales techniques you were trained in?] *No*, what are you thinking! *They threw you in at the deep end*. But they told you to be clever and to use words manipulatively, because these people certainly took pleasure in talking, in listening to us. They were very lonely people.” (Elena, 25, digital archivist at Italy’s public television station RAI, on her experience of working in a call centre)

There is an obvious mismatch here between the remunerated skills of the employees and their broader skills, including skills of a relational kind, which effectively inform the work process. The employees are expected to make use of such skills in a ‘natural and spontaneous’ manner. They are expected to keep themselves available, but their availability is *unfree*;⁵¹ it is expected and demanded by the firm. Their work is intended to produce and market a commodified relation with the client: the provision of the service product is accompanied by and rests upon the sense of trust that is fostered in the client; it also rests upon the knowledge worker’s unlimited availability for constant and flexible interaction. I have already defined this as the *feminisation* of work, which involves the *expectation* of constant availability, over and beyond the stipulations of the employment contract.

⁵¹ Marazzi, *Il posto dei calzini* (as cited in note 44).

“There was the contract, and then there were *rules that were unwritten but nevertheless in effect.*” (Valentina, 26, temporary worker in a call centre)

The subjectivity of the knowledge workers performing Taylorised activities also seems to be characterised by forms of moral numbness and by nervous exhaustion,⁵² in addition to the physical exhaustion that results from repetitive work.

“I found myself having to sell an enormous wedding set: cushions, towels, bed sheets. It was completely overpriced, and I really had to offer it to everyone: pensioners, widows, *people who had not use for it at all.* [...] I had the bad luck of speaking to a person who had just lost a child. I don’t remember whether it was their son or their daughter. And I was supposed to sell them this wedding set. It really made no sense at all. Then there was another person, whose pension wasn’t even enough to live on, and I was supposed to talk her into buying the wedding set. And instead I wanted say: ‘No, don’t do it, don’t buy anything!’ And so the moral of the story [...] is that I said *no. I started to cry. This work is beyond the pale.*” (Elena, 25, digital archivist at Italy’s public television station RAI, on her experience of working in a call centre)

5 Conclusion: From Substantive Categories to Theory

The substantive categories I have identified revolve around the informal nature of working relations, and this has proven crucial to interpretation of the workers’ biographies. The condition of knowledge workers has been analysed with an eye to risk and the different ways in which individuals are affected by it. The interviews show that workers’ perception does not focus exclusively, or even principally, on their lack of formal protection or on contractual is-

⁵² On the situation in call centres, see the field research performed by Enda Brophy: *The Organizations of Immaterial Labour: Knowledge Worker Resistance in Post-Fordism* (Ph.D. thesis, Queen’s University, Kingston, Ontario, Canada, 2008).

sues, but rather on the risk of informal protection – on which knowledge workers rely heavily – breaking down. Today’s knowledge workers, even the highly skilled ones, describe their work experience as involving a transfer of risk from the system to the individual, with the latter forced to assume the responsibility of building a career and switching back and forth between different situations and employment contracts. Given that work now demands greater know-how and the ability to bring to bear one’s knowledge, emotions, informal relations and communication skills, the capacity to autonomously determine one’s own working biography becomes crucial.⁵³

Informality in its various aspects (organisational, of working relations or of training) appears thoroughly ambivalent. Informality is neither simply a resource nor simply an expression of precarity.

What do these findings tell us? Analysis of the interviews indicates that two meta-processes are at work within the field of post-Fordist knowledge work. On the one hand, we are witnessing a neo-Taylorisation of work.⁵⁴ This is not immediately apparent from the interviewees’ statements, but it can be seen from their fear of demotion, which extends beyond purely contractual issues; it is also a fear of ending up having to perform strongly regimented and modularised activities. Knowledge work continues to be characterised by an element of neo-Taylorism, although the overall context has changed.

On the other hand, we can also discern elements of what might be described as the expropriation of subjectivity. As we have seen, knowledge work includes a significant amount of relational work; ‘situated’ affective and social skills, motivations and forms of behaviour characterise the activities associated with knowledge work

⁵³ Regalia / Sartor, *Le relazioni di lavoro nel terziario avanzato* (as cited in note 20); Federico Butera / Sebastiano Bagnara / Ruggero Cesaria / Sebastiano Di Guardo, *Knowledge working. Lavoro, lavoratori, società della conoscenza*, Milan: Mondadori, 2008; Touraine, *Le monde des femmes* (as cited in note 44).

⁵⁴ Romano Alquati, *Lavoro e attività. Per una analisi della schiavitù neomoderna*, Rome: Manifestolibri, 1997.

and are key to their valorisation. Informal relations are in fact premised on and contextualised by the new forms of work, and self-determination involves constant development of one's cognitive and relational tools: self-determination and knowledge appear as closely intertwined.

In the Fordist era, workers who entered a particular organisation were faced with a predictable trajectory, a 'career ladder' whose rungs were clearly defined. In today's knowledge society, workers no longer navigate such an 'internal' market but rather an 'external' market. Risk is transferred from the system to the individual; the individual is responsible for constructing his or her own work trajectory as he or she passes through a variety of contractual forms and contexts.

Given these findings, I propose the following hypothesis: ambivalent informalisation can be read as a constituent feature of post-Fordism as a whole, and not just of knowledge work, service work and the new flexible employment relations younger workers face. The ambivalent informality of knowledge workers may reveal something about the changing world of work in its entirety, rather than just about one distinct social group.

The fluidity typical of work relations in the tertiary sector tends to become generalised, to the point of becoming a veritable paradigm. The relational character of production that is characteristic of the tertiary sector tends to expand. In the tertiary sector, the production of services intrinsically implies the predominance of informal relations: a relationship between user and supplier based upon trust and upon the user's subjective view of the supplier. Service providers must actively engage with the circumstances, personalities and demands of the users.

The key feature of service work is informality, as shown by the relevance of *life skills*, or skills associated with a worker's personal life (what Daniel Cohen defines as *biographical capital*).⁵⁵ Some of these skills are *cognitive* (the ability to solve problems and make

⁵⁵ Cohen, *Our Modern Times* (as cited in note 42).

decisions), others are *relational* and *expressive* (the ability to interact with others) and still others are *affective* (the ability to control one's emotions and maintain one's self-esteem).

As Cristina Morini writes, “the biopolitical act of care based on labour and life is the exemplary form of post-Fordist living labour.”⁵⁶ Such labour reproduces, within public space, a relational context typical of the private sphere.

The labour of personal communication (of sensitivity and care), considered unproductive under the Taylorist regime of the ‘one best way’, now acquires public dignity and becomes immediately productive. Thus post-Fordism adopts models of work typical of the service sector, the culture industry and artistic creation.⁵⁷ The worker is no longer a ‘passive executor of instructions’ and no longer engages in ‘industrial conflict’, at least not in the traditional sense. Workers must now relate actively to their object of labour; we are witnessing the emergence of a motivated subjectivity that follows both its own trajectory and that of capitalist valorisation. A subtle thread binds the two together, distinguishing them even as they are superimposed upon one another: the inherent ambivalence of relations. The post-Fordist firm can and must be lean, modular, networked, virtual and supranational. But above all, what is required is a *process of transposition by which knowledge is transformed from an informally circulating personal and social good into the firm's*

⁵⁶ Morini writes that “we need today to reflect on the fact that the system of flexible accumulation is able to extract from labour the very relations, ideas and sentiments that constitute the wealth of the female experience.” Cristina Morini, *La femminilizzazione del lavoro nel capitalismo cognitivo*, in: *Posse. Politica Filosofia Moltitudini* (June 2008), [<http://posseweb.net/spip.php?article86>] (retrieved 6 October 2011). Several studies of gender anticipate this argument and deserve to be better known. See for example Maria Marangelli, *La femminilizzazione del lavoro*, in: *Via Dogana*, 30 (1997).

⁵⁷ Pierre-Michel Menger, *Portrait de l'artiste en travailleur*, Paris: Seuil, 2002; Bernard Gazier, *Tous 'sublimes'. Vers un nouveau plein emploi*, Paris: Flammarion, 2003; Olivier Pilmis, *Modello da seguire o respingere? Lo sguardo francese sulle recenti evoluzioni del lavoro. L'esempio delle professioni artistiche*, discussion paper, 2007.

intellectual capital.⁵⁸ The firm must transform the socialisation of knowledge into organisational and product innovation. More specifically, such transposition becomes a vital resource in contexts where the inclusion of the entire linguistic-communicational sphere within production is the source of new market equilibria that rest on definitions of intellectual property (new software programmes, copyright, etc.). Within the symbolic nexus of risk, work and knowledge production, the diffusion and socialisation of information is decisive, although it is not much to do with traditional forms of apprenticeship; the latter have yielded to a situation in which responsibility is reassigned and work reorganised at an ever faster pace, within a context characterised by rapid shifts between periods of employment and periods of unemployment, education or training.

In fact, the post-Fordist workforce often acquires its skills through cultural consumption and familiarisation with new technologies; the firm then privately appropriates these forms of social cooperation. This is particularly evident in the digital professions, where the adoption of the *mindset of lifelong learning* is no longer one option among others but an unavoidable necessity for anyone who wants to survive on the market.

The flexibility, lifelong learning and diffusion of precarity and uncertainty that characterise the global risk society's *liquid* social model⁵⁹ are related to ongoing innovations within the communicative sphere: innovation and precarity go hand in hand.

Post-Fordist regulation and production is 'liquid' in the sense that experience is now characterised by the inherently contingent nature of objects and relations, and by the capacity to sustain meaning in the absence both of 'memory' and of 'long-term projects', starting from the space where temporal perception resides.

⁵⁸ Paolo Virno, *Mondanità. L'idea di 'mondo' tra esperienza sensibile e sfera pubblica*, Rome: Manifestolibri, 1994; Marazzi, *Il posto dei calzini* (as cited in note 44).

⁵⁹ Bauman, *Liquid Modernity* (as cited in note 2).

A Social Inquiry Into Knowledge Workers in Turin

The current coordinates of class composition can only be determined upon the basis of the problems posed by this new and complex situation.

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