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RUNNING HEAD: EDITORIAL INTRODUCTION

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COMMUNITIES VS NETWORKS:

THE IMPLICATIONS ON INNOVATION AND SOCIAL CHANGE

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The Human Web

For well over two centuries one of the more widely held and deeply believed interpretations of social change has been derived from the contrast between a social form based on small groups, tied by kinship or tight solidarity, and a different social form, based on more abstract and impersonal, contractual or normative relations. Actually this contraposition is far from new, and can be found in various versions in many moments of Western civilization, to limit us to this historical heritage. Greeks living in civilized cities longed about a lost bucolic “golden age”, forfeited when Prometheus brought to humans the dubious gift of fire and technical knowledge. Romans under the Empire revelled the more austere life of semi-rural ancient Republic, and the bustling “chantier urbain” of the European urban renaissance was scorned by the Medieval traditionalists as being the cradle of all sins (Le Goff, 1957; Pirenne, 1980). The list could be long indeed, but there is little doubt that the Industrial Revolution, and the huge human settlement displacement it brought about in increasing and outbound waves since the peak of the enclosures in England provided a new case of unprecedented magnitude (Pizzorno, 1973). The historical experience of this process came under intellectual scrutiny by European intellectuals with the aim to find systematic explanations for

social change. On the many proposed the one that most effectively became deeply rooted in the collective mind, is the *Community vs Society (Gemeinschaft und Gesellschaft)* dichotomy proposed by German sociologist Ferdinand Tönnies. As Charles Loomis notes in the introduction to the English translation (Tönnies, 1957), Tönnies did not propose a very original concept, as the idea of this contraposition was in the air at the time. Actually Tönnies' work was not a great success in the beginning, but it soon became one of lasting and universal value, precisely because it provided a very effective synthesis of a *Zeitgeist* that has not waned in one century (Amin & Thrift, 2002).

Tönnies, and other scholars in the nineteenth century and beyond, all were prisoners of the recurrent fallacy that history was more or less accomplished with the type of society they lived in, at the time the industrial capitalist society. Various models of this general social form were discussed, particularly the capitalist free market bourgeois type and the collective capitalistic socialist one. The Marxian tradition provided a very enticing view of the “end of History” in highly successful theoretical vulgarisations such as the *Communist manifesto* and *State and revolution* (Engels & Marx, 1932; Lenin, 1941). However, the most sophisticated version of this theory of change is provided by Marx in the *Judenfrage* (Marx, 1932) in which he lays down the fundamentals of the transition from a social form unequal – yet to a degree protected by the enmeshing of civil society and politics, as in the feudal system – to a social form (i.e. the bourgeois society) in which the separation of politics and civil society, through free market operations, provides formal equality, but in fact deep substantial inequality. The communist utopia heralded a third model, the socialist one, which would provide the re-composition of politics and solidarity through the collective property of the means of production. No one, however, doubted that the industrial and urban society was there for good. “Socialism” – in the famous pun by Lenin – “is electrification plus soviets”.

The very last decades of the 20th century and the rumbling first years of the 21st proved all these concepts if not wrong, certainly largely obsolete, and in need of radical updating. What

happened starting from that period is widely known, although we are still in the midst of the change and in search of a more appropriate theorisation.

The cradle for this new type of society has been the modern metropolis which grew out of the traditional city, first developing into the industrial city and later on in the contemporary metropolis (Gottman, 1961). This process, encompassing some two hundred years, can be seen as a two phase development. The first transition took place in the change from the agricultural economy and the rural settlement of sparse villages, hamlets and farms to the industrial manufacturing towns (Polany, 1941). The second occurred principally in cities with the change from a largely manufacturing economy to a largely service-based economy and the rise of first and second generation metropolis (Martinotti, 1999). We are now in the midst of a third transition, whose end is not in sight, from a service based economy to a knowledge based economy. And with the ensuing rise of third generation metropolises, or meta-cities or MURs, Mega Urban Regions, depending on the way you prefer to define this new entity in the making. The central theoretical issue, however, is the same. The first two transitions remained largely based on the capability of physically haul goods and persons from one place to the other: thus the crucial technology was that of transportation and the related one of energy supply. As a consequence, models developed to describe and interpret the relations between resources and territory, were largely based on inferences drawn from the so called “tyranny of space”. Namely models that had to take into account distances, speed, energy consumption, power used by means of transportation and their combination with physical traits of the earth surface to produce specific settlements. Thus, to give an example, ships could not directly generate inland cities (and vice versa), and distance from home to work was subject to time and space constraints generating a number of possible settlement patterns, but not an infinite one. And models of society could be simplified in two major ideal types.

Starting from the last quarter of the 20th century the third transition took place, new technologies were added to the family of faster and cheaper, but energy gobbling machines, which reduced the cost of hauling persons and goods from one place to the other. ICTs (Information and Communication Technologies), namely machines that belonged to a new strain or “technological trajectory”, were developed. ICTs are capable to decouple or disembed the speed of messages from the speed of hauling their material support, making it possible for information-based relations to reach practical instantaneity. Thus for a growing number of human interactions the tyranny of space was not anymore a constraint (and a useful theoretical benchmark), and it was possible to talk, albeit a little bit emphatically, of “The Death of Distance” (Cairncross, 2001).

The first transition described could efficiently be modeled with the *Gemeinschaft* / *Gesellschaft* dichotomy, which could also serve passably well to explain the second one. To understand the third transition we are living in, requires a third ideal type which is usually provided by the term *Network Society* (Wellman, 1999) or digital society, a social form in which intense, frequent and stable social interaction is technically possible without physical contact or proximity. Social interaction of this kind is usually referred to as “Virtual Community”, but this is somewhat of a misnomer because Community (*Gemeinschaft*) requires by definition physical contact. What precisely are the connotations of social forms emerging from digitally networked social interactions is the object of many of the essays included in this volume.

This special issue deals with the determinants of innovation generation and social change. Starting from a given research hypothesis, it comprises nine papers aimed at an explorative review of the issue under different scientific perspectives and in different fields. One fruitful possibility is to look at the social preconditions of innovation by addressing the issue of the relational conformation of the different groups in which innovators operate and from which innovations stem.

The introductory paper by Filippo Dal Fiore sets the pace in this regard: assuming that what in the literature and in the common language we call “communities” and “networks” are two opposite social aggregations, the first based on strong ties and the second on weak ones, it hypothesizes that radical innovation is more likely to stem from the latter whereas incremental innovation from the former. If we consider that communities and networks form not only among individuals, but also among other types of entities such as firms or nations (their characteristics and dynamics are well studied through the methods of Social Network Analysis or SNA), the explanatory power of the aforementioned hypothesis becomes far more pervasive.

In the second paper Fortunata Piselli revisits the concepts of “community” and “network” through the urban sociological framework, arguing that communities can no longer be defined as socially and spatially bounded aggregations, as strong and meaningful connections between individuals can be established and nurtured regardless of spatial and temporal barriers, thanks to advances in Information and Communication Technologies.

Tommaso Venturini builds on the hypothesis presented in the introductory paper, arguing that the opposite “innovation styles” that characterize communities and networks are strictly linked with the opposite types of media on which they are based: if the former can rely on implicit channels of communication, the latter require explicit media for knowledge sharing.

In the fourth paper, Riccardo Cappellin tackles the issue of the role played by knowledge sharing among different economic stakeholders, in order to make a given local economy more competitive and resilient.

In this regard, the contribution from Barbara Adkins, Marcus Foth, Jennifer Summerville and Peter Higgs draws on Granovetter’s notion of embeddedness to examine organisational linkages

in the field of Creative Industries. Their paper presents the results of a qualitative study on the design sector located in an inner-city area in Brisbane, Australia. They suggest that the innovative potential of inter-organisational linkages needs to be understood in the context of layers of symbolic identifications at the level of the field of design, the symbolic community associated with the locale and the awareness space of networks that is required in the context of project and collaboration imperatives.

In her paper on the *Cato Manor* Development Project in Durban (South Africa), Nancy Odendall investigates the complex relationship between a given institutional and political context and the role played by designers and actors involved in urban development. She advocates that innovative dynamics take place as embedded in different communities and networks.

Remco Kranendonk and Paul Kersten present their experience in managing several Communities of Practice (CoP) established by the Dutch Government in order to foster and govern innovation in the sector of Agrolistics. Linking together a wide range of stakeholders, the authors argue that a CoP can be designed on the basis of theory, by promoting internal alignment among participants and letting them to take over the steering of the process.

In the following paper Nicola Cavalli addresses the issue of the symbolic dimension of innovation processes, playing with the concepts of “discursive community” and “communicative genre” to understand under which conditions an invention becomes an innovation, thanks to its acceptance by society. He discusses the case of e-book, an invention that has not yet evolved into an innovation.

In the last work, Scott Francisco draws a parallelism between the debated dialectic between communities Vs networks and the tension between specification and culture in architecture, namely

giving instructions, information and orders, in the context of pre-established knowledge, values and traditions. The space for innovation lies in this gap and it is where architects play an important role as agents for social change.

All papers deal with the contributions of “soft” factors to the origin of different processes that eventually contribute to innovation and social change, addressing from complementary perspectives the role of communication among the actors and stakeholders involved. Communities and networks play a paramount role since they are “the place” for communication, at the micro and macro level.

This special issue is based on the outcomes of a workshop on “Communities Vs Networks, as the extremes of a continuum of social containers for innovation”, held as part of the second International Conference on Communities and Technologies (C&T2005). Among other things, the workshop left a legacy in the form of several open research questions:

- How transaction costs differ in communities and in networks?
- Is convergence towards a common meaning a precondition for innovation?
- How defined should the knowledge domain be in order for a community to generate and thrive?
- How does ICT impact on the way relationships get shaped?
- Do communities imply a biotical element?
- How much specification and how much craft for innovation?
- Does standardization promote radical innovation?
- Is keeping things implicit and linear vital for communities?
- “There are 5 competing definitions of “e-book”. Hence, e-book can not become an innovation”
- In which ways can an individual be the “hub” for innovation?

We hope to address these questions at C&T2007.

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Last but not least, many thanks to all contributors to this special issue, for their effort in preparing their papers with a special attention to the common objectives of the overall work.

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