

RECONCEPTUALISING 'TIME' AND 'SPACE' IN THE ERA OF ELECTRONIC MEDIA AND COMMUNICATIONS

PANAYIOTA TSATSOU

LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE
AND SWANSEA UNIVERSITY, UNITED KINGDOM

Abstract: This paper examines to what extent electronic media and communications have contributed to currently changing concepts of time and space and how crucial their role is in experiencing temporality, spatiality and mobility. The paper argues that media and communication technologies play a complex part in shifting conceptions of time and space, without diminishing to insignificance the concepts of time and space or subjective experiences of them. On the contrary, by challenging established conceptual approaches to time and space, electronic media could be considered to 'mediate' time and space, problematising the multi-layered significance of how they are experienced today. The paper is divided into three sections. First, it presents theoretical approaches to time and space, and it discusses the two seemingly contrasting approaches of 'time-space distancing' and 'time-space compression'. Second, it develops a historical analysis of the ways in which media have empirically modified the concepts of time and space, and it discusses the examples of 'internet time' and new 'electronic spaces' to challenge the argument of temporal simultaneity and non-significance of space in the new digital era, respectively. Viewing the historical changes of space in particular as intimately linked to the shifting conceptualisation of place, the third section examines the emergence of a perception of place as 'non-place', whilst it argues in favour of the counter-thesis of a mediated sense of place. In this regard, the paper espouses the thesis that electronic communications have succeeded in interconnecting remote places without eliminating their importance.

Key words: time, space, place, electronic media, compression, distancing, mediation

INTRODUCTION

This paper examines whether and to what extent electronic media and communications contribute to currently changing concepts of time and space, looking at their role in how people experience temporality, spatiality and mobility. I argue that electronic media and communications play a complex part in shifting conceptions of time and space, expressing the need for redefining and reconceptualising the terms in question through the notion of 'mediation'. By challenging existing conceptual approaches to time and space, electronic media and communications have problematised the multi-layered significance of how people experience time and space, with temporal and spatial dimensions of reality still being important, though in a different way from the past¹.

'Time', 'space' and 'place' are some of the most used and misused terms in media and communications, and they have been defined differently and from different theoretical perspectives, constituting rather nebulous keywords in the field. In outlining the conceptual framework of these terms, time is defined as 'natural time... abstract time ... or experiential (phenomenological) time', with the latter being conceived as 'my time: time as experienced by me-or-anyone, my own here-and-now, my situated being-in-the-world, me as a real someone someplace sometime now' (Scannell, 1996, p. 152). Space, in turn, 'is amorphous and intangible and not an entity that can be directly described and analysed' (Relph, 1976, p. 8). In relation to the often intermingled concept of place, 'there is nearly always some associated sense or concept of place' in a way that 'it seems that space provides the context for places but derives its meaning from particular places' (Relph, 1976, p. 8). In this sense, place 'is a concretion of value ... it is an object in which one can dwell', whilst 'space ... is given by the ability to move' (Tuan, 1977, p. 12).

Time and space constitute intrinsically inseparable elements of physical reality. Time engages space and space requires time, as 'we have the sense of space because we can move and of time because, as biological beings, we undergo recurrent phases of tension and ease' (Tuan, 1977, p. 118). On the one hand, space exists in time, changes through time and it is depicted differently at different temporal points in history, whereas distance often involves time length. On the other hand, the sense and measurement of time are heavily dependent upon space and spatial distances. Consequently, time is associated with the spatial dimensions of the world and vice versa, while these two structural aspects of reality 'coexist, intermesh, and define each other in personal experience' (Tuan, 1977, p. 130). Space becomes place when it acquires symbolic meaning and a concrete definition, marking the whole spectrum of identity and sense of belonging. Thus, place is also associated with the concepts of time and space. These close links and their crucial importance for the evolution of reality bring forward the issue of the role of electronic media and communications in conceptualising and experiencing time, space, and place.

Time, space and place are involved in a heated discussion of continuity and change in relation to media and communications systems². 'Time-space compression' (Harvey, 1990, 1993), 'compression of the world into a "single place"' (Robertson,

1992, p. 6), 'stretching' of social relations across distance, namely 'action at distance' (Giddens, 1994), 'no sense of place' (Meyrowitz, 1985), and 'placelessness' (Relph, 1976) are some of the prominent approaches to the concepts of time, space and place and to the ways they are experienced in an age of postmodernity and electronically mediated communications. Before the advent of electronic communications, people were bound by oral communication and physical travel, whereas today people are able to cross and adjust temporal and spatial distances largely because of the usage of electronic media and communications.

The paper is divided into three sections. First, time and space are approached from a theoretical perspective. The paper discusses two main seemingly contrasting theoretical approaches, 'time-space distancing' and 'time-space compression', and argues for the necessity of adopting a more dialectical view that combines these two approaches and allows the reconceptualisation of the concepts of time and space through the notion of 'mediation'. In order to substantiate this argument, this section reviews contemporary theoretical and empirical literature in media and globalisation studies and illustrates the complexity of the notion of 'mediation' and its role in reconceptualising time and space. The second section provides a historically informed analysis of the ways in which electronic media have empirically modified how time and space are conceived and experienced. With reference to the modern archetypal examples of 'internet time' and new 'electronic spaces', I challenge the arguments of temporal simultaneity and the non-significance of space in the digital era. Viewing historical changes of *space* in particular as intimately linked to shifting conceptualisations of *place*, the third section examines the perception of place as 'non-place', formulating however the counter-argument that place is not abolished but mediated in varying ways.

REVIEWING 'TIME-SPACE DISTANCING' AND 'COMPRESSION': MEDIATED TIME AND SPACE?

The significant bulk of the literature in media and globalisation studies contends that mass media and communications and, more specifically, electronic media have altered the importance and nature of spatial and temporal gaps. The invention of the Morse telegraph in the 1840s was the first medium that enabled communications between remote places in shorter times, thus reducing the importance of space and time (Meyrowitz, 1985, p. 13) for remote communication and exchange. The telegraph also paved the way for the synchronisation of local time and the establishment of time zones (Rantanen, 1997, p. 610). These developments led to the formation of the first news agencies in the first half of the 19th century, which brought about an instantiation of communications around the globe (Rantanen, 1997, p. 611). Instantiation of communications has been strengthened even more by the broadcasting media in the second half of the 20th century in particular as well as by the increasingly widespread digital communication technologies of the last two decades.

The experience of time and space has significant implications for people's physical mobility and sense of identity. Thus, the changes in time and space under the influence

of media technologies have provoked a heated debate between theorists. 'Time-space distanciation' (Giddens, 1994) and 'time-space compression' (Harvey, 1990, 1993) are two key theses in this debate.

Central to Giddens' theory on globalisation is the notion of 'time-space distanciation', namely the process of a separation of time from space. This notion stems from, on the one hand, Giddens' (1973) sociological criticism of Marx's argument that 'even spatial distance reduces itself to time' (p. 538) and, on the other hand, the significant influence on Giddens by McLuhan's (1987) problematic concept of the 'global village' and its teleological doctrine that technological advancement allows people to interact with each other as in face-to-face interactions. Giddens (1990) argues that technological evolution has driven a universalisation and liberalisation of time and space, which he considers prerequisites for globalisation in an age of postmodernity. He argues that globalising dimensions of interactions create 'stretched' relationships between 'local' and 'distant' media forms (pp. 63-65), with 'local happenings' being, for instance, 'shaped by events occurred many miles away and vice versa' (p. 64). In non-electronic communications, oral, writing and print forms of communication were shaped by local or inter-local contexts, as temporal and spatial span of communication was limited due to non-advanced technological and other developments (e.g. postal services) and proximity was a prerequisite. In contrast, electronic means of communication have enabled local contexts to develop communication practices and flows of exchange with geographically remote and temporally distant contexts. These practices and flows of exchange separate time from space, facilitate social interactions that are disembedded from spatial and temporal contexts, and establish stretched and distanced communication patterns and relationships.

Close to the idea of distanciation, Thompson (1995) argues that 'any process of symbolic exchange generally involves the detachment of a symbolic form from its context of production: it is distanced from this context, both spatially and temporally, and re-embedded in new contexts which may be located at different times and places' (p. 21). For instance, videos produced in offline spaces can be exchanged and shared only if placed in a new context (e.g. internet websites), thus being distanced from the original context and exchanged between people who live in different time zones and experience different timing in their everyday schedules. In this sense, according to Thompson, the role of media and communications in the production and exchange of symbolic products and meanings entails that these products and meanings become available in a great typology of space and time (p. 30).

Like Giddens, Harvey (1990) identifies postmodern conceptions of space and time as the historical starting point of his theorisation. However, diverging from Giddens' idea of a separation of time from space, Harvey formulates the notion of 'time-space compression'. He uses the notions of universalisation and liberalisation of space and time differently from Giddens, arguing that universalisation and liberalisation allowed time to annihilate space (p. 241). In this sense, what takes place, according to Harvey, is a shortening of time and shrinking of space, so that time has the potential to diminish

the constraints of space and vice versa.

Harvey understands time-space compression as a chain of changes concerning an increasing rapidity of time and a decrease in physical distances in an age of post-modernity: 'the general effect, then, is for capitalist modernisation to be very much about speed-up and acceleration in the pace of economic processes and, hence, in social life' (p. 230). He argues not only that an increasing rapidity of time breaks down barriers of space, but also that media technologies have played a significant role in this change, among other technological innovations: 'innovations dedicated to the removal of spatial barriers ... the railroad and the telegraph, the automobile, radio and telephone, the jet aircraft and television, and the recent telecommunications revolution are cases in point' (p. 232). Thus, for Harvey the advent of new global communications technology like telephones, satellites and TV have made it possible for exchanges to take place compressing the units of time and space needed in the past. Harvey defines the new situation of compression as 'disruptive spatiality' where aggregation of spaces, cultures and symbols redefine, but do not make extinct, the temporal and spatial order of social life we have known so far (p. 302). Hence, the notion of compression aims to illustrate the shifting terrain of temporal measurements and spatial distances, a terrain that defines the terms under which communications are carried out today across the globe.

In this paper, I propose an incorporation of both approaches of 'time-space compression' and 'distanciation' into a single thesis, arguing for a 'mediated' sense of time and space - which considers 'time' and 'space' to be both essentially compressed and significantly distanciated.

Giddens' notion of 'time-space distanciation' has been rightly criticised by Waters (1995), who says that new communications technologies have encouraged transglobal social relationships to become more intense and robust rather than stretched (p. 58). I consider mediated social relationships prominent and tremendously facilitated by electronic media and communications, with time and space being nowadays both stretched and compressed. In this sense, Giddens' notion of distanciation should not be abandoned as the creation of new spaces through media and communications can lead to new places in different units of time.

More specifically, temporal shrinking, permeable spatial boundaries and the establishment of new electronic spaces draw a more complex picture of mediated time-space experiences than that suggested by technologically deterministic theses. Technologically deterministic arguments, such as McLuhan's (1964) claim that electronic media have been 'abolishing both space and time as far as our planet is concerned', thus leading people to 'live mythically and integrally' in a 'global village' (pp. 3-5), do not capture the complexity of the issues of time and space in today's media-saturated system. Beyond techno-deterministic theses, one can argue that 'two decades of rapid technological change in global communications have made temporal and spatial concerns more paramount and more problematic than previously' (Ferguson, 1989, p. 152). Different media forms and usages give rise to divergent perceptions of distance, duration and mobility in multiple contexts, mediating, re-mediating, defining and

negotiating variable understandings and experiences of time and space³.

Contemporary theoretical and empirical research on mediation and globalisation present useful insights into the complexity of issues of time and space in late modernity. Globalisation spans all areas of social living, whereas mediation is one of the main functions attributed to electronic media and communication technologies in an age of globalisation. More specifically, globalisation has significant effects on people's conceptions of time and space. Globalising events, such as 'mega-events' (e.g. the Olympic Games) (Roche, 2003), change the way we conceive and organise the time and space in which we live. Such events have become today 'media events' and are critical parameters of communication and public life. They can, as Dayan and Katz argue (1992), re-locate space and conquer space and time through, for instance, transforming home into public space for the duration of the event and modifying time frameworks according to the schedule of media events (p. 133). Also, global events, or what Volkmer (2008) calls 'event-spheres', create 'globalised discourse spaces in a global network society', providing other symbolic, narrative and cultural dimensions to the notion of space (p. 91). In global events, such as the Olympic Games, time becomes 'olympic' with different time-zones following the time organisation decided by those in charge of the Games, while time difference becomes less of an issue, as media and especially the internet allow people to attend the event at a later time than the time the event takes place at. Space is where the event is held and, regardless of geographic distance, people can 'attend' the event through electronic communications. Also, new spaces can be facilitated through the creation of online discussion forums and other mediated spaces where Olympic Games fans can be located⁴.

It immediately becomes evident that these effects of globalisation and globalising events on time and space are facilitated significantly by electronic media, as the transnational span of electronic communications can extend the scope of 'mega-events', making the latter more influential on how people go about their everyday schedules and contexts of living. Here is where the notion of 'mediation' comes to the fore. Mediation can be viewed as a function and attribute of electronic media and communications. It can also be used to describe media representations of phenomena that take place in 'distant' time and space, and the ways in which such representations may give life to new phenomena (e.g. 'distant suffering') and lead to public action towards and engagement with distant others (Chouliaraki, 2008a, 2008b). A view of mediation as an active use of media to link time and space, as well as to effect public action directly or indirectly, may help us understand the role of electronic media and communications in shaping contemporary experiences of globalisation (Rantanen, 2005), as electronic communications enable through mediation diverse forms of globalisation to be activated in various domains of social life. Mediated globalisation also raises questions of how media and global electronic media in particular change our conceptions of time, space and place, as they arguably free 'communication from the constraints of the immediate and the local' (Silverstone, 2005, p. 197). An indicative example of the nature and role of mediation in (re)conceptualising and (re)experiencing time and space is Silverstone's

(2006) notion of the 'mediapolis', which he defines as: 'the mediated public space where contemporary political life increasingly finds its place, both at national and global levels' (p. 31). 'Mediapolis' is largely created by electronic communications, constituting the new, mediated arena where public debate and communication take place regardless of previously restrictive spatial and temporal boundaries and through incorporating experiences and perceptions of those boundaries.

The notion of 'mediation' is also contained in debates on 'mediatisation'. Mediatisation has been seen as a social process (Hjarvard, 2005; Krotz, 2007) that should be approached from an institutional perspective (Hjarvard, 2006) and with a strong performative element (Cottle, 2006). Mediatisation goes beyond the function of mediation and representation and allows us to disentangle more directly the effects of media on society and culture: 'the media will be doing something more than simply reporting or "*mediating*" them; they will be performatively enacting them, that is, "*doing something*" over and above reporting or representing ... "*mediatising*" them in a subjunctive mode' (Cottle, 2006, pp. 415-416, original emphasis). More specifically, Schulz (2004) argues that there are three functions of media in communications that describe the notion of 'mediatisation': the 'relay function' by which the media transmit messages and services over geographic and temporal boundaries; the semiotic function that encodes and formats messages of human communication; and the economic function through which mediated products constitute part of the mass production processes of today. The 'relay function' is what one can understand as 'mediation', while the other two functions complement 'mediation' and extend the impact of media on various aspects of human communication and social life. It is through the almost instant transfer of messages and services across geographical boundaries and through different time zones or in different time slots, that media bridge spatial, temporal, as well as cultural distances, often creating new spaces (e.g. online forums) and new measures of time (e.g. Twitter and 'real time').

The concept of mediation has inspired scholars to look at specific electronic media forms and to explore the ways in which such forms modify and/or re-organise one or more aspects of temporal and spatial dimensions of life today. Hoskins (2001), for instance, argues that television remediates the past in the present since it positions events and news in new temporal contexts. He claims that television does this by providing 'liveness' and fighting against 'time lag' between the occurrence of an event and its televisual broadcast (e.g. the Gulf War and its communication via CNN), creating a sense of simultaneity which blurs distinctions between perceptions of old and new. Similar to this notion of 'simultaneity' is Tomlinson's concept of 'immediacy' which he heralds as a new element of culture after the shift from mechanical speed to electronic media and communication systems, and especially in the 21st century. Tomlinson (2007) links immediacy to time and the idea of 'instantaneity', as well as to 'space' and the sense of proximity, connection and direct agency, arguing that immediacy is a new cultural condition highly brought about by electronic media systems, or what he calls 'telemediated cultural experience' (p. 74).

Regarding new media that advented after broadcasting and demonstrate a high degree of interactivity (e.g. the internet), Castells (2000) provides an account of how advances in telecommunications have created a 'network society', and established 'the space of flows' and 'timeless time'. For Castells, 'the space of flows' describes a new material organisation of human communication and exchange that is independent of physical proximity, and where time is 'timeless' or dissolved, sequence is lost and parallel or simultaneous communication takes place. Castells' ideas have been developed further in relation to more recent technological forms of communications, such as mobile communications (Fortunati, 2002; Castells *et al.*, 2006, pp. 171-178). New media technologies raise also the issue of how mediated time and space relate to external temporal and spatial boundaries. External or conventionally accepted boundaries (e.g. time and geographic zones) have increasingly less restrictive power on communication and exchange, with mediated or internal time and space establishing their own boundaries, often in parallel as well as in co-existence with external spatialities and temporalities. For instance, researchers have discussed 'cross-platform' media production (e.g. radio and internet), arguing that such methods operate in their own unique time and space (Neumark, 2006, p. 222), enabling communication to take place regardless of external spatial and temporal limitations or gaps.

Extending the notion of 'mediation', some argue that in today's communication landscape a 'repertoire of "connected" relationships' takes place, thus going beyond 'mediated' relationships (Licoppe, 2004). It is argued that 'connected' relationships do not substitute face-to-face communication, but constitute another communicative dimension and possibly enrich face-to-face communication. Also, it is argued that 'connected' relationships make physical absence and geographic or temporal distances increasingly less important as neither determines communications as significantly as in the past. Licoppe (2004) uses the example of mobile technologies, stressing the decreased importance of physical location in gaining access to communication and human connection. Nevertheless, such arguments about the diminishing importance of space or time in electronic, digital and mobile communications are subject to criticism, as discussed later in the paper.

More recent work on mobile technologies (Link & Campbell, 2009, p. 1) argues about a 'reconstruction of space and time', as mobile technologies influence time and space in many realms of social life, such as the transformation of public into private space and vice versa, the blurring of lines demarcating work and personal life, and new patterns of coordination and social networks. Here it is argued that spatial distances are less important due to the personalised nature of communications across geographic regions developed through mobile technologies. However, mobile technologies allow people not only to detach communication activities from external spatial boundaries but also to re-structure such boundaries, as they set more technological criteria for defining space and its boundaries. For example, a mobile telephone user often thinks of spatial boundaries not on the basis of how these boundaries are defined externally (e.g. geographic zone, city, borough, road, etc). Instead, when the user intends to communicate through his

or her mobile phone, s/he thinks of space and its boundaries taking into consideration technological or 'network' criteria such as network coverage, signal strength, etc. In terms of time, Link and Campbell (2009) discuss the potential of mobile technologies to facilitate diverse coordination schemes of time, which result in the diminished meaning of clockwise time, as time is now defined in terms of being 'convenient or not'. At the same time, a new sense of time is created in mobile communication which might often lose touch with external (clockwise) temporal boundaries. For instance, mobile telephony users count time mostly in terms of credit available or convenience and appropriateness of the time when mobile communication takes place, often independently of external time boundaries and more dependently on 'internal' (subjective) conceptions and contextualisations of time.

Thus, mobile technologies influence the ways in which individuals position themselves in space and time, determining degrees of spatial and temporal flexibility in everyday living. This point is similar to Link and Campbell's (2009) argument about how 'spatio-temporal boundaries are negotiated in a mobile society' (p. 14), though they refer here not only to the actual spatio-temporal boundaries but also to the ways in which people perceive and mentally (re)construct or eliminate such boundaries. Although mobility creates a sense of fluid and shifting temporality and spatiality, the user has the potential not only to re-conceptualise but also to re-shape and re-structure the time and space boundaries that matter for his or her communication, without time and space becoming unimportant.

All these theoretical and research reflections on time and space in the era of electronic media and communications synthesise a complex and often controversial picture of how different media technologies influence, negotiate and define personal and societal understandings of time and space in different modes and in diverse contexts. By problematising and synthetically examining such discourses and research arguments, I argue that time and space exist through mediation, re-mediation, restructuring and negotiation in electronic communications.

RECONCEPTUALISING 'TIME' AND 'SPACE'

Using the examples of 'internet time' and 'electronic spaces', this section develops a historical analysis of how media have influenced conceptualisations of time and space, challenging in particular some of the arguments of temporal simultaneity and the insignificance of space.

From 'time' to 'internet time'

I would like to point out the socially-constructed nature of concepts of time and space. Time was conceptually constructed through the invention of the calendar and, in the modern world, by the international standardisation system of Greenwich Mean Time. Also, time has been influenced by historical changes in perceptions and experiences of social and geographical spaces, thus being socially dependent and historically shaped by various parameters determining social order. As Durkheim (1965) remarks, 'it is the

rhythm of social life which is at the basis of the category of time' (p. 488). In this sense, the methodical study of time requires its social and historical contextualisation, as well as a historical-empiricist perspective that accounts principally for structural effects on time by changes in the existing social order (Lee & Liebanau, 2000, pp. 44-48).

The social framework in which time is arranged in modern times was first shaped by the invention of the mechanical clock, which established parameters for the measurement of time and its conformity to human affairs, and ultimately humans' conformity to it. Later on, in the 19th century, the first wired electronic medium, the telegraph, undermined the essence of the previously prevalent conception of 'real time' (in oral communication) and of delayed time (in script and printed communication), as it allowed communicators to overcome, for the first time and to a certain extent, time gaps and barriers in communications. This initial process towards instant global communication expanded after the advent, in the 20th century, of wireless electronic media – namely the radio and television. Broadcasting has been thought to constitute, from its very beginning, the means that changed our sense of time. In Scannell's (1996) words: 'the huge investment of labour (care) that goes to produce the output of broadcasting delivers a service whose most generalisable effect is to re-temporise time' (p. 149). In his analysis, Scannell discusses the role of the 'broadcasting calendar' in shaping 'our sense of time' (pp.152-155). In addition, I would argue that broadcasting and electronic media more generally not only alter our sense of time, but also create other 'parallel' time frames. Electronic media have their own 'times' and calendars, which are organised in consideration of non-media time frames, influencing and re-negotiating at the same time the dynamics, perceptions and experiences of the latter. For example, there are particular types of radio and TV programmes which are transmitted in the morning only. These programmes take into consideration the target audience's daily schedule, while they influence the audience's daily routine significantly.

Particularly as new digital communication technologies develop, the conceptualisation of time alters. Rifkin (1987) claims in this respect that:

...the computer will help facilitate a revolutionary change in time orientation, just as clocks did several hundred years ago...the new computer technology is already changing the way we conceptualise time and, in the process, is changing the way we think about ourselves and the world around us (p. 13).

The internet and the construction of the concept of 'internet time' (Lee & Liebenau, 2000, p. 43)⁵ exemplify Rifkin's and others' views on the role of new media technologies⁶. New information and communication technologies (ICTs) and the internet in particular have influenced the dynamics of everyday life, as they 'affect and change time, people's perceptions of time, and the way time is organised' (Lee & Liebenau, 2000, p. 44). As Haddon (2001) maintains, time is in many ways connected to ICTs; either as time structured and organised by ICTs (Scannell, 1988), or as 'disposable' time spent in ICTs, with consequent 'opportunity costs' (Klammer *et al.*, 2000), or finally as time pressure and multitasking problems that are potentially alleviated by using ICTs (Frissen, 2000).

The internet and the various activities in which people are involved when using it have fundamentally changed the meaning of temporal differences and their implications for physical mobility. Contacts between distant locations can take place on the internet at the same time. Internet activities, such as e-mail, alter the dimension of time in work and in social interaction, releasing rigid time-patterns in the organisation of work and other everyday life activities. In Negroponte's (1995) words: 'nine-to-five, five days a week, and two weeks off a year starts to evaporate as the dominant beat to business life. Professional and personal messages start to commingle: Sunday is not so different from Monday' (p. 193), with all industrial settings of work and living now revised by flexible and shifting post-industrialist modes of time management.

In this sense, information technologies and the internet in particular help 'diminish the importance of time-frames generally accepted as appropriate for performing a given activity' (Failla & Bagnara, 1992, p. 678). This weakening of time constraints, in terms of communication between remote places and within the everyday organisation of life, goes even further, offering people a new virtual reality that 'allows "future" or inexperienced experiences to be experienced' (Lee & Liebenau, 2000, p. 50). In doing so, the internet 'allows simulation of the future and thereby modifies the time-frames which are no longer relegated to repetitions of the past with little variation' (Lee & Liebenau, 2000, p. 50). Indicative examples are internet spaces, such as Second Life, social networking sites and interactive online games, all of which allow shifts of conventional offline temporal boundaries through fitting in these boundaries online time schedules and activities that operate in parallel and which are located in 'virtual' temporal frameworks, challenging users' identities and life timeframes⁷.

Regardless of the re-negotiation of time frames and the creation of a parallel 'internet time', temporal limitations still exist even in this emerging virtual world of communication, exchange and mobility. For instance, while internet users have a sense of instantaneity, the inefficiency of web surfing and delays in connections make time matter. Empirical studies on internet non-usage have illustrated that one of the main reasons for people not adopting or abandoning the internet is time spent inefficiently searching online material (Katz & Rice, 2002). Thus, even if one accepts the view that the old order of measurable and firmly demarcated time 'is being shattered in the network society' (Castells, 2000, p. 463), Castells' notion of 'timeless time' and the idea that mobile or wireless technologies have enhanced even further the timelessness of time (Castells *et al.*, 2006, p. 174) should be problematised. Temporality, lag in time and deadlines still matter, even if they are increasingly mediated by new technologies, with the latter altering the parameters of influence, dimensions, flexibility and aspects of urgency of time in everyday life.

Also, although the internet has provoked a shift in definitions and perceptions of temporality, the incorporation of time into people's lives is historically rooted in different cultural environments. Time is still a consideration that people cannot ignore in their daily lives, as it is tightly attached to the complex notion of people's cultural identities and lifestyles. Nowotny (1994) talks, at a very early stage of the development

of internet communications, about 'the illusion of simultaneity', while the notion of subjective time – the evaluation of temporal quality by different individuals – contests the claim of instantaneity of today's social life (pp.16-44). In this respect, the movement of temporality along technological change demands a structural reconsideration of the old-fashioned notion of time that takes seriously into account socio-cultural drivers and media technology parameters that mediate the concept and experience of time.

From 'space' to 'electronic spaces'

Space is an ambiguous and inconsistently defined concept. In this paper, I view space as both a geographical and a socio-economic dimension of existence.

As regards the geographical dimension, space is broadly considered a physical location but it is often associated with the concept of place, as 'space provides the context for places but derives its meaning from particular places' (Relph, 1976, p. 8). In this respect, representations of space are derived essentially from the experience of cultural and perceptual places that shape individual and collective identities. As such, space is linked to the notion of thought, consciousness and experience⁸.

From a socio-economic perspective, the production of space is rooted in capitalism and in technological and organisational developments that took place in recent centuries (Harvey, 1993, pp. 5-7). Space and spatial relations have been heavily commodified and affected by the structural conditions of market production and consumption. Especially during the course of the last century's commercial and technological advancement, it has been argued that spatial boundaries have been restructured and seriously challenged. For example, Heidegger (1971) argues that 'all distances in time and space are shrinking ... everything gets lumped together into uniform distancelessness' (p. 165). The spread of mass media and communications has given rise to new 'electronic spaces', diminishing spatial distances. The example of 'electronic spaces' can shed light on the role of electronic media in reconceptualising space and reshaping the ways in which space can be experienced.

In outlining the historical role of media and communications, one can distinguish five main stages of mediated communications that influenced the conceptualisation of space and its relation to time: the stage of oral – what could be considered 'unmediated' or 'premediated' – communication which was accompanied by a local sense of space and a specifically framed time period; the stage of script media production which boosted an extended local conception of space, broadening the spatial span of communication and its viability in time; the stage of print media which gave rise to both local and extended national spaces, decreasing and restraining the importance of time for communication; the stage of electronic media which has given rise to a global conception of space and time, lying at the core of this paper; and the stage of digital communication, which is still developing and tends (wrongly, in my view) to see space as meaningless and the world as distanceless.

With the invention and spread of mass electronic media, the primarily dominant oral and script communication, where locality was the fixed realm of exchange, gave

way to geographically dispersed communications, decreasing the importance of spatial differences and detaching physical mobility or distance from the rapidly increasing pace of communications. This is so, as communications developed globally and defined their own 'electronic spaces' regardless of the space where the involved actors are located or the physical mobility they demonstrate. The use of the telegraph was the focal starting point of this evolution (Rantanen, 1997, p. 612). Newly constructed and more abstract spaces of mass communications, global 'electronic spaces', thus started to emerge, constituting a point of reference in the history of communications. These new electronic spaces became another commodity, which was controlled by a handful of global media forces, while based on mediated social relationships (Harvey, 1993, p. 14).

Later, in the first half of the 20th century, the invention of broadcasting transformed spatiality in a fundamental way, as it made the content of communications available and accessible to everyone around the globe, thus challenging perceptions of farness and spatial barriers. Through broadcasting, humans began to have the 'possibility of being in two places, two times, at once', so that 'the world returns for us in its wholeness' (Scannell, 1996, p. 172). Hence, electronic media of the last century boosted further the emerging electronic spaces, with the latter embodying 'the magical liveness of a here-and-there, now-and-then' (Scannell, 1996, p. 173).

Even more recently, new 'virtual' spaces available on the internet have signalled further transformations or even debasement of conventionally perceived 'real' spaces. The question to address here is the extent to which the shift from 'real' to electronic or virtual spaces will facilitate a domination of digitally shaped or 'unreal' spaces. Especially in the age of mobile internet and other mobile means of communication, the arguments for a 'reconstruction of space' (Link & Campbell, 2009) and the creation of a new material organisation that is independent of physical proximity (Castells, *et al.*, 2006, pp. 171-178) obtain more significance.

This paper claims that 'electronic' and 'virtual' or mobile spaces of a worldwide reach do not abolish the significance of space; rather, they alter the structural conditions under which people conceptualise and experience space⁹. Graham and Marvin (1996) make a similar point in their account of electronic spaces and the future of cities. They confirm that telecommunications 'dramatically alter the significance of distance in the organisation of space' (p. 317), but they argue that space is still important, as 'the city is being redefined and redrawn in both physical and electronic space' (p. 336). I would like to take this argument further, as this is about a process of redefining and restructuring space, with mediation reframing existing spaces and creating new, parallel electronic and virtual ones. The argument that the changing experience of space results in a world where no spatial distances matter is challenged further in the following section where the closely associated concept of place and arguments of 'placelessness' are discussed critically.

FROM 'PLACELESSNESS' TO 'MEDIATED PLACE'

The above discourses on the shift in the conceptualisation and experience of space

have generated theorisations concerning the ways in which the concept of place and its experience have been equally altered, giving rise to abstract (unspecified) spaces or 'non-places' (Auge, 1995, pp. 77-80), as discussed later in this section.

Place, conceptualised in terms of geography and individual emotional-cultural or 'lived' involvement (Tuan, 1977), cannot be understood without taking into consideration the spatial relations that sustain it (Harvey, 1993, p. 15). This section discusses whether the above spatial shifts through electronic media and communications support the argument of 'imaginary', 'electronic' or 'virtual' spaces that replace existing places as they become accessible via mediated worldwide images.

No sense of place and place polygamy

As the concept of place is socially constructed, multi-layered and divergently contextualised (Harvey, 1993, p. 4), the literature has stressed its importance for the identification and location of individuality in the world. It is argued that 'there are as many identities of place as there are people' (Nairn, 1965, p. 78) and place is considered crucial for the orientation of human beings and the formation of 'place-bound identities'. Place is the means through which people make sense of the world in which they live and act (Harvey, 1993, p. 4), and Relph (1976) claims that places 'are not abstraction or concepts, but are directly experienced phenomena of the lived-world ... important sources of individual and communal identity ... centers of human existence' (p. 141). Heidegger (1958) further declares that "'place' places man in such a way that it reveals the external bonds of his existence and at the same time the depths of his freedom and reality" (p. 19). Consequently, making sense of a place requires not only locating but also defining the 'self' as an individual and social being with a past and a future, thus enabling self-positioning into community and the development of specific communal identities (Crang, 1998, pp. 103-104).

Regarding the shifts in the concept and experience of place, scholars have argued that place and identity are in crisis, using terms such as 'no sense of place' (Meyrowitz, 1985), 'placelessness' (Relph, 1976) and 'non-place' (Auge, 1995). A lack of an authentic sense of places (Relph, 1976, p. 64), which leads to the weakening of distinct experiences and identities of places, as well as look-alike landscapes and, consequently, abstractedness of spaces are some of the main arguments in this direction. In this sense, space, regarded as the context of places, has content and it takes meaning from particular places. Such positions raise the question of how contemporary subjects experience different places around the globe. For example, does the airport of Heathrow differ in any way from other airports in big cities around the globe? Or is, as Auge (1995) puts it, 'the traveller's space...the archetype of *non-place*' (p. 86, original emphasis) dominated by geographical and cultural uniformity?

At this point, Beck (2000) and his notion of 'place polygamy' add another dimension to how people perceive and experience places (pp. 72-77). His example of a woman who lives in two places during the calendar year, feeling both places to be home, challenges the linear relation between place, culture and identity that Harvey, Relph and Crang

used to consider essential. However, Beck ends up with the same sense of identity in crisis, as he implies that today it is difficult for the individual to define him or herself and to associate with a specific place that fits this identity and further develops it. What he argues is that, in the age of globalisation, identity is characterised by 'place polygamy' rather than a sense of a single place of birth or life, as subjects can simultaneously access more than one place through geographical or media mobility. Beck does not deny the existence of different places; rather, he argues that subjects may be 'marri[ed]' to several places at once, and experience culturally diverse places in a single location (pp. 73-74). The examples of western capitals, such as New York and London, are indicative in this respect, as physically they are approachable and psychologically they provide the same sense of cosmopolitanism to visitors and residents:

Transnational place polygamy, marriage to several places at once, belonging in different worlds: this is the gateway to globality in one's own life; it leads to the globalisation of biography ... One's own life is no longer tied to a particular place (Beck, 2000, p. 73-74).

These arguments about the sameness of places, or placelessness, and 'place polygamy' can be problematised and essentially criticised. Complementing recent ideas supporting that media and media uses are place-making practices (Moores, 2007), I claim that for each individual the notion of place takes on a different meaning and it is mediated by human relationships which take place in different socio-cultural contexts. Taking into account Moores' (2007) argument that place-making is carried out in daily living and has strong habitual and affective dimensions, I support that places do not exist only as geographically demarcated areas (spaces), since the coexistence of experience, perception, imagination, location, individuality and sense of community is essentially involved in their construction. In this complex interrelation, 'materiality, representation and imagination' (Harvey, 1993, p. 23) cannot be seen separately in the continuously evolving process of place construction, as places are still significant elements of social reality and individual identity. To answer the question above of whether airports are distinctive today, I espouse Cresswell's (2006, p. 257) observation that even if they are very much alike in terms of architecture and design, people's appropriation and experience of an airport differ, becoming potentially an 'intricate "place-ballet" of multiple movements'. For example, travelers may perceive particular airports as transits to a life experience, the homeless may find shelters in the airport, and taxi drivers and other airport staff may consider the airport to be their workplace, with these individuals experiencing and attaching themselves to the same airport in their own ways.

Place and media and communications technologies

At this point, the paper accounts for the role of media in the claimed increasing homogeneity of places in an age of post-modernity, where, arguably, 'we are most likely to find prophetic evocations of spaces in which neither identity, nor relations, nor history really make any sense' (Auge, 1995, p. 87).

According to Relph (1976), by constructing a model of mass attitudes and fashions

of kitsch (p. 120), mass communications contribute to the domination of 'mass culture of dictated and standardised values' and to 'a growing uniformity of landscape and a lessening diversity of places' (p. 92)¹⁰. In more balanced terms, Meyrowitz (1985) evaluates the relevant role of electronic media, arguing that "electronic media affect us ... by changing the 'situational geography' of social life" (p. 6). He talks about the distinction between social and physical place, with electronic media leading "to a nearly total dissociation of physical place and social 'place'" (Meyrowitz, 1985, p. 115). This is what Auge (1995) presents as the space of 'non-place' through the mediation of words, where 'certain places exist only through the words that evoke them and in this sense they are non-places, or rather, imaginary places: banal utopias, clichés' (pp. 94-95).

At this point, I share Moores' criticism (2007, p. 14) of Auge's and Relph's pessimistic arguments about the non-existence of place thanks to media technologies, among other factors, as Auge and Relph seem to be concerned with the environmental, technological and architectural uniformity of physical locations today, instead of the diverse or routine ways in which people experience and locate themselves into such physical locations, giving these physical locations more cultural and social-existential dimensions. Nevertheless, I aim to take Moores' thesis further, arguing for an assessment of the role of media in the existence of place today through the exploration of people's interactions with media technologies. These can be interactions concerning not only the identification of a physical location or space as place but also the ways in which the latter is mediated and experienced in everyday life. In addition, the media and the creation of new electronic spaces, discussed earlier in the paper, provide more opportunities for the creation of mediated places where people can experience and re-define their identity elements (e.g. virtual communities on the internet).

Scholars such as Auge, Relph and (to a certain extent) Meyrowitz support that electronic media and mediated communications have reduced the need for face-to-face contact, thus decreasing the importance of place-formed communities (Webber, 1964). Thus, they mistakenly identify 'place' and associate its social importance with its physical location (Moores, 2007, pp. 4-5). Looking deeper, the changes that electronic media and communications systems have provoked imply that the driving forces of place, identity and ideology are diverse and open to change, making the creation of place hardly predictable and equally unforeseen and diverse. This hardly predictable influence of electronic media on place is considered by Scannell (1996) and his argument that broadcasting results in people 'being in two places at once' (p. 91) – the physical and the experiential place, (e.g. public events and the liveness of broadcasting). People can interact and associate themselves with the place where they are in at a particular moment, such as a crowded square, while having in front of their eyes a screen that transmits everything that is happening somewhere else, on a music stage for instance, thus experiencing the energy that is present in the other place, the music stage, and while being located at a long distance from it. This potential of the electronic media and the social or identity element of place lead Moores (2007) to argue that 'electronically mediated communications transcend physical boundaries virtually instantaneously,

while serving to recreate aspects of the liveness and immediacy of physical co-presence' (p. 4). Hence, electronic media re-situate people and contribute to the process of place-making, rather than to that of constructions of 'non-place'.

One could argue that through mediated images, people either become aware of the existence of other places or enrich their perceptions of what a place can be, acting in favour of the evolution of their own place. For instance, news agencies early on, in the 19th century, arguably 'increased readers' sense of place ... started to build the bridge between here and there by bringing places where events occurred to readers of news.' (Rantanen, 2003, p. 436). Rantanen actually argues that electronic news create at first a sense of placelessness, but then give a new sense of place to the reader, allowing him or her to distinguish between 'here' and 'there'. Furthermore, one must not overlook the increasing importance of the sense of place in the production of electronic messages. This may be illustrated by the example of news agencies, as 'news agencies competed against each other in transmitting news from remote places as fast as possible. Places also became an object of trade' (Rantanen, 1997, p. 615).

Even if one accepts that the authenticity of the experience of places is seriously undermined by the increasing production of mass values and ideals, the potential for alternative conceptualisations and new forms of places should not be omitted in considerations of place. For example, for migrants (Moore, 2007), the role of media in maintaining a sense of remote place (e.g. homeland) or in the experience of belonging to a new, physically proximate place may indicate not only the persistent importance of place but also the significance of the ways in which place is mediated by electronic communications today.

Having contributed to the conception of space and time as universal and to the partial collapse of space and time constraints, electronic media and communications cannot be conceived as necessarily influencing placelessness. From this point of view, claims about the diminishing importance of place-based communities due to the influence of mass communications (Webber, 1964) may be dismissed as monolithic and deterministic. Mass and new electronic communications mediate the sense of place and succeed in interconnecting remote places in global electronic spaces, negotiating identities, and modifying forms of mobility, but without eliminating the essence of place, space, and time.

CONCLUSION

This paper has noted the critical role of media in challenging historically significant concepts of time and space, changing how people shape their identities and extending the scope of physical and psychological mobility in today's globalised world. The first section discussed critically two contrasting theses, 'time-space compression' and 'time-space distancing', highlighting the complexity of time-space relationships through a review of theory and research on mediation. Arguing against the uncritical exposition of extreme theses regarding the collapse of temporal distances and the elimination of spatial distances, I have favoured a more moderate view where time and space continue

to matter, sometimes even more significantly, and where electronic media play a far more complex role in mediating social phenomena, thus restructuring concepts and experiences of time and space. The second section explored the role of media and communications in the ways in which time and space have historically been subject to change, using the historical examples of 'internet time' and 'electronic spaces' to problematise the arguments of temporal simultaneity and the insignificance of spatial distances. In the third section, I engaged with the ways in which the historical changes of space in particular have resulted in notions of 'non-place' and 'place-polygamy', articulating a counter-argument that electronic media and communications provoke a mediated sense of place. This suggests that the interminable discussion of time and space as meaningless dimensions of reality should finally cease and be replaced by another discussion: a discussion which focuses more on how these dimensions are mediated, re-mediated, defined and restructured in the arena of global electronic communications and mediated experiences of remote places, requiring continuous and insightful reconceptualisation.

ENDNOTES

1. The temporal context for presenting the argument of reconceptualising 'time' is late or post-modernity and more specifically the last decade of the 20th century and the first decade of the 21st century. On the other hand, the spatial context is quite fluid, as the paper does not specify the countries or the populations it refers to. Nevertheless, the spatial boundaries are somehow defined by the rather globalised and, at the same time, uneven diffusion and development of electronic media and communications, where the focus is mostly on countries and populations of the West.
2. The main scholars involved in the discussion of time and space are: Giddens (1994), Harvey (1990 & 1993), Auge (1995), Massey (1992), Meyrowitz (1985), McLuhan (1964 & 1987), Innis (1950 & 1951), and Relph (1976).
3. This is what Ferguson (1993, p.156) describes 'new time-space "zones"' that can view "'time-without-time", and a de-contextualised sense of "space-without-space"' through a 'transformational logic'.
4. Another analysis of events is offered by Katz and Liebes (2007).
5. Although Lee and Liebenau discuss 'internet time' in the context of the invention, by the Swiss watchmaker Swatch, of a new way of measuring time that is appropriate for internet users' synchronisation, 'internet time' is seen in the paper from a broader perspective and as indicative of the shifting terrain of time in the internet era.
6. Others use different terms to discuss time and ICTs. Hassan (2003, p.233), for instance, uses the term 'network time' and defines it as 'digitally compressed clock-time; which operates on a spectrum of technologically possible levels of compression'. However, he takes a rather rigid techno- and network-centric approach to explain the shift of the shapes and roles of time in people's lives.
7. These ideas are close to Baudrillard's (1995) argument about the blurred line

- between reality and artificiality, or 'hyperreality'.
8. In his attempt to illustrate the interconnection between space and place and the role of consciousness, Relph refers to various forms of space such as pragmatic or primitive space, perceptual space, existential space, architectural and planning space, cognitive space and abstract place. For more, see Relph, 1976, pp. 8-26.
 9. This is in line with the view of Lefebvre (1991), who argues that 'space as a whole, geographical or historical space, is...modified, but without any concomitant abolition of its underpinnings' (p. 90).
 10. Relph (1976) refers to a range of 'processes' or 'media', such as mass communications, mass culture, big businesses, powerful central authorities and the economic system, all of which encourage placelessness (pp. 90-121).

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AUTHOR'S BIOGRAPHY

Panayiota Tsatsou is a lecturer in Media and Communications at Swansea University, United Kingdom. She is currently completing her PhD thesis at the London School of Economics and Political Science. Her doctoral research explores digital divides in Greece and is supported by the Hellenic Republic State Scholarships Foundation. She is involved in European research on new media and communications. Previously she was a Tutorial Fellow at the LSE and contributed to teaching media and communications at the undergraduate and postgraduate level of study in Greece and in the UK respectively. Email: p.tsatsou[a]swansea.ac.uk