

SOCIOLOGY IN SWITZERLAND

Towards Cybersociety and Vireal Social Relations

Is the Cell Phone undermining the Social Order? Understanding Mobile technology in a Sociological Perspective

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Summary:

While *conventional mass media (and fixed phones)* have primarily supported centralized, formalized organizations, households and other supraindividual systems, *cell phones* increase the reach and capacity of decentralized, informal systems based on interindividual interactions, thus decelerating or even reversing very long-term evolutionary trends of human society: trends toward stable, depersonalized, formalized, complex and predictable supraindividual institutions.

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1. Introduction

Since its initiation in 1876, very few Sociologists have been particularly interested in the telephone because it is too exclusively connected with the very lowest level of social life: the level of bilateral interaction. The Internet evokes much more interest because it is a far more universal technology also able to support multilateral relationships of all kinds: thus giving rise to virtual groups, communities, organizations as well as trans-societal networks on a global scale.

Among the scanty theorizing, we find extremely contradicting positions. On the one hand, the phone is seen as a medium of organization: making possible the real-time integration of highly complex organizations as well as myriads of coordination processes within cities that could not be realized on the basis of face-to-face interactions because most people would have to adopt the role of moving messengers most of the time (e. g. Lasen 2002:20; 26; Townsend 2000).

On the other hand, the German sociologist Hans Paul Bahrtdt considers the phone as a "medium of disorganization" which produces anarchy by enabling everybody to reach everybody else directly, without observing formalized channels of communication (Bahrtdt 1958). Such disruptive effects are especially pronounced in ideal-type bureaucracies that allow only vertical (not horizontal and diagonal) communicative flows.

Evidently, the phone is "regressive" at least in the sense that it supports the oldest mode of verbal exchange: oral communication: thus reducing the usage of letters or other written documents (that future historians could use for reconstructing our present time), and enabling also illiterates to engage in transspatial communication.

In the following, it is maintained that this "regressive" and "subversive" impact of landline phones is very much amplified and generalized by mobile phone devices, because they empower informal microsocial networks to communicate much more efficiently outside any institutional control.

When visiting Paris in summer 2004 after many years of absence, I was suddenly struck seeing so few Bistro guests reading newspapers, and so many engaged in mobile phone conversations. I asked myself whether the cell phone has a generalized capacity (or even: effect) to direct the free time resources of individuals to the sphere of personal interaction: thus shielding them from new acquaintances in their environment as well as from messages originating in the larger world.

2. Four regressive impacts on social and societal structures

Looking into the fascinating history of communication media, it is remarkable how much weight has been given to the development and implementation of various one-to-many media with the capacity to empower centralized and formalized organizations: e. g. to the

printing press, Radio and TV. All these one-to-many media have in common that they invade the private sphere of individuals with propaganda, commercials or other messages that serve the interest of enterprises, governments, political parties or other collective entities that are usually not part of daily life.

As a stationary device, the landline phone also supports supraindividual institutions: by connecting locally fixed offices and by forcing individuals to be at a certain place and to use such institutionally provided intermediaries for getting into mutual communication (Geser 2004). By contrast, current digital technologies have given rise to various innovations with at least certain capacities to slow down or even reverse this long-term trend. Thus, the Internet certainly empowers single individuals by providing everybody with identical technical capacities for engaging in any kind of bilateral or multilateral interaction, for searching information or for publishing his/her personal views on a worldwide scale - with a minimum of costs and efforts and without any spatial restrictions.

Similarly, the mobile phone empowers and enlarges the sphere of microsocial interactions: by making individuals free to reach each other under any circumstances: without the need to conform to institutional norms demanding to be at a specific place (and to relate to others being present at this same location). Thus: the seed is sown for a long-term countertrend that may lead to a major shift from supraindividual collectivities (like bureaucratic organizations) based on stable locations and depersonalized formal rules to decentralized networks based on ongoing interindividual interaction.

Looking at the usage pattern of cell phones shown by my own kids and friends, and studying the still scanty empirical research findings on this same topic, I increasingly got the impression that apart from diverting attention from mass media, there are several other aspects in which the cell phone works as an "antievolutionary device": by promoting the retrogression to more simple, "premodern" patterns of social life.

In at least four different ways, it seems to undermine or even reverse long-term trends of societal developments though to be irreversible at least since the inception of the industrial revolution and the rise of larger bureaucratic organization: thus falsifying well established macrosociological theories hitherto used to model the development of modern societies.

- 1) by increasing the pervasiveness of primary, particularistic social bonds;
- 2) by reducing the need for time-based scheduling and coordination;
- 3) by undermining institutional boundary controls and in replacing from location-based by person-based communicative systems;
- 4) by providing support for anachronistic "pervasive roles".

2.1 The new pervasiveness of primary social bonds

Despite its technical capacity to make each individual immediately accessible to each other, the landline phone has nevertheless contributed to strengthen the ties among people already familiar to each other (e. g. in the neighbourhood or community), while its contribution to larger social networking has been rather modest (Lasen 2002: 25).

Cell phones can even better be used to shield oneself from wider surroundings by escaping into the narrower realm of highly familiar, predictable and self-controlled social relationships with close kin or friends (Fortunati 2000; Portes 1998). Such tendencies are supported by the fact that in contrast to fixed phone numbers, which are usually publicized in phone books, cell phone numbers are usually only communicated to a narrow circle of self-chosen friends and acquaintances, so that no calls from unpredictable new sources (including insurance agents, telephone survey institutions etc.) have to be feared (Ling 2000; Geser 2004).

Thus, mobile phones may support tendencies towards closure rather than tendencies to open up to new acquaintances. This function is highlighted by the empirical regularity that in Finland, owners of mobile phones are most frequent among members of two or three-person households (Puro 2002: 20), not among singles, and that in Italy, usage is highest among individuals who maintain close contacts with their kin (Fortunati 2002: 56). Similarly, Koreans have been found to use the cell phone much more for strengthening existing than to initiate new social ties (Park 2003); and a Japanese study shows that one of the major functions of web phones is to get into contact with nearby friends (Miyata et. al. 2003).¹

As Fox vividly describes, the cell phone can function as a powerful tool for re-establishing the fluid, casual modes of informal communication typical for traditional communal life - thus counteracting the losses of communalistic social integration caused by traditional media as well as the depersonalizations of modern urban settings.

"... this is for me the essential thing about mobile phones: they enable the type of (virtual) communication and interaction which characterizes premodernity: people who never move far, live in small towns and villages near each other, everybody knows where everybody is etc. But being virtual, this kind of communication is not any more bound to any single locality, as it was in the premodern times." (Roos 2001)

While the intrusion of strangers can be reduced, circles of established friendships can be deepened because a higher density of communication within such circles can be maintained - irrespective of time and place (Ling 2000).

Given their capacity to retain primary social relationships over distance, the use of cell phones can well go along with regressive psychological tendencies: e.g. with the need to cushion the traumatic experiences in foreign environments by remaining tightly connected to the loved ones at home: Thus, the mobile can function as a "pacifier for adults" which reduces feelings of loneliness and unprotectedness at any place and any time (Geser 2004). Another, similar metaphor conceptualizes the cell phone as an "umbilical cord", making social emancipation processes more gradual and less traumatic by allowing parents and children to retain a permanent channel of communication during periods of spatial distance (Palen/Salzman/Youngs 2001; Ling 2004: 48).

¹ The broad relevance of such "regressive" usage modes is vividly illustrated by the results of the pan-european EURESCOM-Study of 1999 where almost 85% percent of younger users (14-24) share the opinion that "a mobile telephone is helps one to stay in steady contact with family and friends." (Ling 2004: 60).¹

Given the constant availability of external communication partners (as sources of opinion and advice), individuals may easily unlearn to rely upon their own judgment, memory and reflection: thus regressing to a state of infantile dependency from always the same narrow circle of "significant others" - even in cases where they are 10,000 miles away (Plant 2000:62). As a consequence, individuals may well become less prone to develop certain "social competencies": e.g. to react adaptively to unpredictable encounters, to participate in conversations with unforeseen topics, to form a quick impression and judgment about newly met people, or to learn quickly how to behave conformingly in new colloquial gatherings and groups (Fortunati 2000).

While the fix phone has promoted the diffusion of highly universalistic linguistic expressions (like Hallo, Pronto etc.), the cell phone seems to support the balkanization of language into a myriad of particularistic subcultures characterized by a highly informalized style of expression (Ling 2004: 145ff.)

Given this empowerment of informal language, schools may have increasing difficulties of implementing formal writing styles on individuals permanently using a very different jargon when writing their SMS (or when chatting on the WWW).

2.2. The decline of time-based scheduling and coordination

Continuously frequented campfire sites established more than 500,000 years ago testify to the skills of emerging hominids to reach agreement about convening at the same place at a specific hour (or day). Since then, evolutionary advances of human societies were closely associated with an increasing capacity to use time-keeping for purposes of social coordination. Since the incipient 13th century, artificial clocks have increasingly replaced natural indicators (e. g. the position of the sun, moon or stars): thus making coordinations more precise and independent of geographical locations (Landes 1983; Ling 2004: 64). Since the 17th century, philosophers have used the clock as a paradigm for modelling a universe where everything happening is strictly determined in advance, and since the 18th century, "*the clock, not the steam engine is the key machine of our industrial age*" (Mumford, 1963:14). More and more, the life of contemporary individuals is permeated by time regulations forced upon them by formal institutions: by the time-tables of railways and buses as well as by opening hours of shops, the scheduling of school classes, or the rigid daily, weekly and yearly oscillations of work hours and leisure time.

Under conventional technological conditions, preplanning was inevitable because people had no means of communicating at later points in time (especially when they were already on the move). Under this perspective, it is evident that cell phones reduce the need for temporal pre-planning, insofar as rearrangements can be made at any moment, even very shortly before the agreed time. Thus, a new, more fluid culture of informal social interaction can emerge which is less based on *ex-ante* agreements, but more on current *ad hoc* coordinations

according to short-term changes in circumstances, opportunities, or subjective preferences and moods (Ling/Yttri 1999; Ling 2004: 69ff.).

“The old schedule of minutes, hours, days, and weeks becomes shattered into a constant stream of negotiations, reconfigurations, and rescheduling. One can be interrupted or interrupt friends and colleagues at any time. Individuals live in this phonespace they can never let it go, because it is their primary link to the temporally, spatially fragmented network of friends and colleagues they have constructed for themselves.” (Townsend 2000).

Such social settings are “real-time systems” where everything happening is conditioned by *current* situations, while the impacts of the past (effected through rules and schedules) and of the future (impinging in the form of planning activities) decline. (Townsend 2000; Plant 2000: 64).

Transnational empirical studies have shown that such contributions to the coordination of everyday activities are consensually seen to be one of the most outstanding advantage of the new technology, and Rich Ling judges them to be “*the “greatest social consequence”* of mobile telephony at all (Ling 2004: 58f.),

Thus, the very high penetration rate of the mobile in Italy seems to be associated with its support for a spontaneous, disorganized lifestyle that has always reigned among most of the country's population (Fortunati 2002: 55).

To the degree that this deregulation takes place, there is a growing discrepancy between the sphere of informal interpersonal relationships and the realm of formal organizations and institutions (where time-scheduling is relentlessly maintained). As a consequence, there are more tensions at the interface of these two discrepant worlds: e. g. when public transportation timetables limit the spontaneity of intraurban movement, or when schools and work organizations experience growing difficulties in imposing norms of punctuality on kids no longer accustomed to schedule their daily life (Ling 2004: 77f.).²

2.3 The deregulation of institutional boundary controls and the shift from location-based to person-based social systems

In the view of Spencer, Parsons, Luhmann and many other reputable theorists, the major defining characteristic of modern society is its outstanding degree of differentiation along functional (instead of ethnical or stratificational) lines. In other words: the net of social reality is woven by the complementary relationships between highly autonomous institutional orders and other functional subsystems: each cultivating its own distinctive views, values and norms.

² Similarly, there is a growing gap between small groups (especially pairs) where ad hoc coordination by cell phone can fully be effective, and larger groupings that have still to rely more on conventional time-based pre-scheduling modes (Ling 2004: 77).

A closer look reveals that such autonomy is heavily based on spatial segregation. By insulating social systems from their general social environment, the preconditions have been created for subjecting them to processes of systematic (e.g. technological and organizational) development and specialization.

Thus, modern economic systems are anchored in industrial organizations that have separated work processes from their traditional embedment in family households or other institutional settings; and modern medicine would be unthinkable without the hospital where patients are spatially concentrated for systematic diagnosis and treatment (Foucault 1963).

While designed for talking at a distance, landline phones have paradoxically also facilitated dense aggregations of people in space, for example by supporting the communication within large-size firms (Townsend 2000). Similarly, the fixed phone had a stabilizing impact on location-based social orders, because stationary supra-individual systems (e. g. offices or households), not individual members, were the units between which it created communicative connections. Thus, it still fundamentally belongs to the historical era of "place-to-place networks". As people had to go somewhere to meet someone, they also had to phone somewhere in order to communicate with a specific person (Wellman 2001).

By contrast, cell phones undermine these traditional orders by creating direct links between particular individuals: irrespective of their institutional role and location. They tend to weaken the control of all formal institutions over their members' behavior, because they open the opportunity for all members to reduce or interrupt their formal role involvements by engaging in alternative role behavior and completely private interactions anywhere and anytime: e.g. during office hours, school lessons or military duties and when driving a car or piloting a plane. Thus, schools come under pressure to allow kids to use cell phones, because their parents are eager to keep in touch at any time whenever needed (Mathews 2001).

Under such new circumstances, centralized institutional control of system boundaries is more difficult to maintain, because it is no longer achieved as a simple correlate of physical walls or spatial distances, but has to be actively upheld by constant controlling procedures (e.g. by preventing employees from mobile phones for private purposes).

Cell phones undermine the basic notion that physical and communicative isolation are tightly correlated, so that measures on the "hardware" level of physical allocation and transportation are no longer sufficient to produce parallel effects in the loftier "software" sphere of interpersonal communication. They introduce an element of entropy into all social groups and institutions anchored in places or territories, because they permeate them with communicative relationships which transcend system boundaries in highly heterogeneous and unpredictable ways (Agre 2001).

Homes, churches or school buildings will of course continue to symbolize the unity of families, parishes or schools as organizations and institutions, but they may become "empty shells" without much determinative influence on what is "really going on" on the level of social communication and cooperation.

2.4 Support for the survival (or re-establishment) anachronistic “pervasive roles”

Cell phones can be instrumentalized for preserving diffuse, pervasive roles which demand that the incumbent is available almost all the time, because such encompassing availability can be upheld even when individuals are highly mobile and involved in other activities. Thus, mothers can use mobile phones as “umbilical cords” to their children, so that they are in contact with them the whole day even when they are at work or on travel. Paradoxically, then, the cell phone could make it easier to perpetuate (rather than to eliminate) traditional forms of labor division between the genders, because mothers are still available as traditional “caregivers” even while working (Ling 2004:63), and the husbands of successful “remote mothers” may feel more legitimated to evade family duties.³ Similarly traditional family doctors can be available to their patients whenever needed, even if he/she is at a dinner party or some other private location. And owners of businesses can preserve a traditional patriarchal leadership role which demands their availability around the clock. They can thus inhibit processes of organizational differentiation by remaining remain themselves “on duty” all the time instead of delegating responsibility to subordinates

In general, then, cell phones can give new impetus to the very old fashioned idea that individuals “belong” exclusively to particular groups, communities or organizations to which they have to be committed unconditionally during limitless hours. This idea collides fully with all the recent societal developments that have provided a secure basis for individual autonomy: for the capacity of everybody to maintain a secure private sphere as well as to divide his/her commitment to several - sufficiently segregated - roles

Empirical studies indicate that needs to increase “safety” and “security” are most prominent motives for adopting cell phones (Ling 2004:35ff.). This implies that most users are ready to tolerate the losses of personal autonomy inevitably associated with such gains in social involvement and personal protection. Thus, the freedoms gained by being able to connect to anybody from anywhere at any time is at least partially counteracted by the increasing duties to answer incoming calls and to “keep in touch” with kin and friends who expect to be contacted (Bachen 2001). In addition, a whole gamut of newly emerging reciprocity norms have to be observed: by answering timely with a equivalent message that must not be standardized (such as a canned joke), but produced ad hoc for the specific occasion (Ling 2004: 153). In fact, *“one higher order consequence of wireless communication is that it makes us more responsible, for both our own actions and those of people for whom we have assumed responsibility. In effect, we become more subject to social control”* (Katz 1999: 17).

In contrast to many earlier negative utopias of the emerging “surveillance society” (Gary Marx), it not some sort of “Big Brother” wishing to trace my whereabouts, but just my own

³ Consequently, the call phoen may well enable women to retain their traditional “social administrator” role they have usurped by being the ones usually answering the fixed phone at home (Ling 2004: 63).

little brother (sister, parent or kid). In other words: the Orwell-type visions of "totalitarian control" emanating from unlimited governmental and mass media power have given way to a sort of "neocommunitarian" control emerging from a denser horizontal cohesion of informal groupings facilitated by the ubiquity of mobile digital communication.

3. Some preliminary conclusions

To see the mobile phone as a transformative factor of contemporary society means to adopt Georg Simmel's view that even the largest societal structures and institutions are determined from below: emerging from myriads of tiny interindividual interactions ("Wechselwirkungen") not subject to encompassing planning and control.

While *conventional mass media (and fixed phones)* have primarily supported *centralized, formalized organizations*, households and other supraindividual systems, *cell phones* increase the reach and capacity of *decentralized, informal systems* based on interindividual interactions, thus decelerating or even reversing very long-term evolutionary trends of human society: trends toward stable, depersonalized, formalized, complex and predictable supraindividual institutions.

First of all, the cell phone is prone to increase the pervasiveness of the most intimate personal relationships in individual life. Anywhere and anytime, I can evade non-familiar contacts in public places, bridge time gaps of loneliness and avoid to rely on self-guided judgement by contacting my loved ones at home. increases the extent to which social life is filled out with the most simple of relationships: bilateral interaction. It offers an easy escape route from unfamiliar public encounters and from more complex multilateral situations: thus reducing the chance that more demanding „social competencies“ can be acquired by a decline of time-based scheduling and the re-emergence of spontaneous, unpredictable patterns of social life. Long-term evolutionary trends toward planning, scheduling and temporal discipline come to a halt: giving way to spontaneous, ad-hoc coordinations according to current whims and circumstances.

Thus, social life becomes more unpredictable and more complex forms of social cooperation may become more difficult to create and maintain.

In a very general way, mobile phones undermine traditional mechanisms which have secured the segregation between different social systems. Instead, each individual is now burdened with the task of regulating the boundaries between different social relationships, groupings, organizations or institutions.

Thirdly, cell phones support the maintenance of highly pervasive social roles that bind individuals wholly into particular groups, communities or occupational functions: thus diminishing their capacity to keep a separate private life or to maintain any other commitments.

In all these three aspects, a kind a "disintermediation" takes place: in the sense that the mediating contribution of supraindividual institutions is no longer needed for realizing and coordinating informal interactions, because such informal interactions can be initiated and maintained by direct interpersonal communication. This is most vividly illustrated by the declining relevance of objective time as a medium of interactive coordination:

"In a sense, mobile telephones allow us to cut out the 'middleman'. Rather than relying on a secondary system - which may not necessarily be synchronized - mobile telephony allows for direct interaction." (Ling 2004: 70).

Another disintermediation effect is seen in the case of adolescents who have no more need to aggregate in public places in order to decide about common endeavours, because such decisions can easily be made directly from home. This again encourages a social life that is exclusively taking place inside homes - thus reducing the relevance of public localities and events altogether (Ling 2004:102)

Using the famous terminology of Habermas, this would imply that the well-known "colonization of the everyday life-world by formalized systems" would give way to a countervailing trend where the life-world will increasingly encroach on systemic institutions: e. g. in the well-known way that school children cannot be prevented from reading and writing SMS during class, or that even religious services are nowadays interrupted by mobile calls.

By facilitating highly informalized, spontaneous modes of social cooperation, the cell phone promotes collectively acting Networks which operate on the very lowest level of organization: actors that remain intransparent and incalculable because they don't manifest themselves in terms of explicit formal organization. The problematic downside of this development is vividly seen in the case of clandestine terrorist groups that use the cell phone for remote detonations, or in that case of highly "chaotic" antiglobalist movements that act without leadership and explicit planning because they constantly respecify their collective actions by means of mobile communications (Klein 2000).

Given its affinity to informal, noninstitutional social spheres, the cell phone may be most useful for rather marginal population groups not integrated into work-roles or other stationary institutions (e. g. kids, adolescents, migrants, the jobless or retirees).

In our own societies, it seems that the unrestricted public usage of mobile phones is more akin to lower-class culture than to middle and higher class settings where the studies show that the intrusive effects of cell phone calls are much better tolerated in proletarian restaurants than in higher-class dining rooms (Mars/Nicod 1987). And in a worldwide perspective, the cell phone may be particularly greeted by populations habituated to live in a subinstitutional world of social informality: by people who have never been much affected by the standards of Western formal bureaucracies and the tyranny of time-based regulations.

Thus, the "digital divide" separating high and low user groups is of a much different kind than that associated with the PC and the WWW (Ling 2004: 15). Considering its affinity to lower class culture, the cell phone could well become a "negative status symbol" in the future: so that its explicit *non-use* or even *conspicuous absence* would become increasingly an indicator of positive social distinction.

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