UNDERSTANDING THE ROLE OF MOBILE MEDIA IN SOCIETY
Models and Theories
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Introduction
In this chapter I want to reflect on the most appropriate models and theories for understanding the role in society of the particular family of media called “mobile media” or, as Paul Levinson has defined them, “media-in-motion.” Mobile media are the core of today’s technological innovation in the field of information and communication technologies (ICTs). They are constituted by various devices such as mobile phones, laptops, iPods, walkmans, personal digital assistants (PDAs), digital cameras, GameBoys and so on. Their heterogeneity across platforms, content, and media makes them challenging to study and define. In any case, there is a need to systematize studies to date.

Although this chapter regards mobile media as whole family, the focus will be on the mobile phone because it is both the most representative of this family and the most studied. First of all, I will examine the problematic definitions of mobile media. Second, I will analyze the most important conceptualizations of mobile media that have been generated on this field. Third, I will outline a theoretical model capable of mapping the large amount of scholarship on mobile media and society and to show the limits of current conceptualizations. Fourth, I will propose a new model that is more flexible and capable of including a large amount of theoretical approaches. In the conclusion I will discuss the future implications of this new model.

Problematic Definition of Mobile Media
Mobile media are an important family of technologies to study and they are characterized by their being “mobile.” However, the characteristic—mobility—that originates their label leaves many questions. From the outset, mobile media practices range across a variety of mobile and immobile spaces. They are “mobile” because they follow the human body: when it moves they move, when it is stationary or sitting mobile media become sedentary. Thus defining them as mobile is not completely correct; it would be...
better to define them as media that can be mobile or portable. However, they are more than portable. They are in reality wearable, in the sense that they assimilate with the aura of the human body and harmonize with outfits.4

The definition of mobile media reveals no less theoretical challenges—especially given its association, and conflation, with new media. The mobile phone is often considered as the emblem of new media alongside the Internet. But the definition of what is new media turns out to be equally evanescent. For example, when Ithiel de Sola Pool tried to define the new media he produced a list of almost twenty-five devices.5 Almost twenty years on, Manovich, in his attempt to classify new media cited six devices, completely ignoring one of the most convergent new media devices.6 These two examples are indicative of how the classification of new media is a very difficult issue. Kim and Sawnhey point out that the definition of new media is problematic because it is based on a concept of novelty, itself a temporary concept.7 In sum, when we try to define mobile media in one way or in another, the result is always problematic. So let us leave aside this question for the moment and map the main theoretical approaches to mobile media.

Four Theoretical Approaches to Mobile Media

Mobile media are understood and studied in many ways. Here I briefly analyze the major ways in which scholarship has looked at them: as technological artifacts,8 relational objects,9 technologies-in-practice,10 and socio-technical systems.11 Looking at mobile media as technological artifacts is generally the first step of any analysis, not only on mobile media but also on technologies of information and communication in general. Although the meanings and functions of mobile technologies are continuously constructed and negotiated among the different stakeholders involved in the process—e-actors,12 content providers, operators, manufactures and so on—it is always wise to start from the body of the technology, studying the functions and the services provided, how they are designed in the physical space of the device, and what are the procedures of use, the ritualization, the gestures which are made by e-actors, as well as the interfaces and the modalities of use (micro dimensions).

The aspect of the technological object is also important, because, as it happens in the case of the mobile phone, it accompanies us during our everyday life routines. There are many studies which stress the importance of fashion in respect to the mobile phone.13 These studies show that the mobile phone is perceived as a fashion item, especially by women, and that in the last twenty years this device has been conceptualized sometimes as an accessory, other times as an ornament and yet other times as a jewel.14

However, fashion, although very important, is only one of the “aesthetic” approaches to this device. The other approach is that which is expressed by design, that uses art for realizing technological artifacts capable of giving pleasure, but at low cost. The philosophies which are behind these two approaches are opposite.15 The philosophy of fashion consists of using art to attract the attention of people, to display elegant objects with the purpose to enhance the personal power of mobile phone owners and to regulate social relationships to own advantage. The philosophy of design consists in using art to create simple and discrete artifacts which are destined to become invisible in everyday life. These two philosophies, moreover, interpret the market in an opposite way: the fashion addresses the desires and dreams of affluent people, while the design addresses those of the mass market. In the everyday life of million e-actors, in effect, mobile media become fashionable in these two ways. In the end, the studies on the capability of ICT e-actors
stress that the body of the technology (the famous black box) remains very often impenetrable to the knowledge and awareness of e-actors. The risk of this first approach for the researcher is to become prisoner of a functionalist approach.

The second way to understand mobile media is by looking at them as relational objects. To explore deeply the social meaning of mobile media it is important to analyze them within their relation with human beings and thus to introduce a relational conception of mobile media. Moving the analysis towards the structure of this relation has the effect of framing a perspective in which the power relationship between the two polarities comes into play.

Then, the third way to understand mobile media is looking at their practices of use. Looking at mobile media as technologies-in-practice allows us to discover many things about what they are. Their identity in fact turns out to be shaped day after day by the practices of use that e-actors express. By analyzing what people do with mobile media we can understand all the features of their use (when, where, what, how), which functions and services are used and which ones are ignored, the meanings people attribute to them, the emotional investment people express in them, how they conceptualize these devices, and the social representations people build of social media.

Finally, the fourth and last way to understand mobile media is by passing from the micro dimensions described up to now to the macro dimension of socio-technical systems. Considering mobile media as such opens the possibility to investigate them in a very useful framework that includes practices, structures, and processes, characterized by contextualized space–time dimensions. Introduced by Ropohl in 1979, the notion of socio-technical systems was elaborated with the purpose to capture and describe the interrelationship between humans and machines. This notion allows us to grasp the complexity of general situations, rather than to analyze specific aspects or a single technological artifact and can be useful for reaching a comprehensive understanding of technology in its interrelationship with society. I think that the socio-technical system is the ideal framework to study the complex interrelationship between society and mobile media, since people generally use several technological artifacts in their everyday life. Furthermore, today, given the level of integration among technological artifacts that takes place in the consumption sphere of everyday life and the strong convergence supplied by media groups, telecoms, operators, content providers, and so on, it is even more meaningful to assume and operationalize this concept.

A Theoretical Model to Map the Theories of Mobile Media as Relational Objects

Focusing on the second approach that considers mobile media as relational objects, it is possible to outline a tripartite model of their role in society which is based on the power relations existing between them and e-actors and which covers almost the most shared and applied theories in this field of studies. I propose to conceptualize mobile media as:

1. technologies with more power than humans;
2. technologies with less power than humans;
3. technologies which have a peer relationship with humans.

Each one of these approaches comprises a certain number of theories. Here for space reasons, I select only one for each approach. Thus, for the first approach we will discuss technological determinism, while for the second approach domestication theory and finally social shaping of technology will be selected for the third approach. This model describes three different ways to conceptualize the role of mobile media:
1. As powerful engines of social change with more power than humans (Figure 2.1). The emblematic theory here is technological determinism.\textsuperscript{20}

In this case mobile media are conceived as the engine of social change and thus the dominant side of the polarity. In this theoretical framework e-actors are the dependent variable and they suffer the effects of the changes introduced by mobile media. The role of humans remains subdued and humans appear quite subordinate and even impotent. The role of mobile media is perceived as proactive. Mobile media are seen as an unproblematic and taken as a given element which is able to produce social changes and transformations within a linear process.

2. As technological artifacts with less power than humans (Figure 2.2). The emblematic theory here is domestication theory.\textsuperscript{21}

In this case mobile media are the weakest side of the polarity and hence have less power than e-actors. E-actors tame them and transform them from wild to domestic forces.

3. As elements that have a peer relationship with humans (Figure 2.3). The emblematic theory here is the social shaping of technology.\textsuperscript{22}

This theory, that represents in any case an advancement when compared to previous theories, stresses the mutual influence of technology and society.
The main limit of these three different approaches is that they are exclusive. They see the relationship between technology and e-actors by presupposing that between the technology and the e-actor can exist only one kind of relationship and that this kind of relationship does not change in time and space. The necessity to pose the question in terms that each one relation has to exclude the others is seen as a logic problem responding to the principle of non-contradiction. Another, fundamental limit connected to the first and from which many others descend is that these theories are all a-temporal and a-spatial. They do not include space and time in their frameworks. This means that one does not understand either that a theory is always the product of a given time and space, place, and context; or why it is necessary to generate continuously new theories. Another limit that descends from the non-introduction of the time category is that these theories (apart Rogers’ theory on diffusion of innovations23) analyze the technology without taking into account the particular stage of the diffusion of the device in question. This is limiting since any technological artifact crosses several stages during its diffusion and appropriation by e-actors. The consequence of all these limits is that research on mobile media risks being designed inside rigid fences.

A New Model

A new theoretical and layered framework is proposed here in order to overcome the limits of this tripartite model (Figure 2.4). This new model is constituted in its turn by two different levels.

**The First Level: Mobile Media as Players of Multiple Roles**

The first level expands the tripartite model by introducing the categories of time and space and by looking at both e-actors and mobile media (especially mobile phones, laptops, PDAs, and tablets) in time and space. In this way, it is possible to situate the relationship between e-actors and mobile media in a given, historical moment and in a given space, place, and context. We create the possibility to conceptualize both these poles—e-actors and mobile media—as playing a plurality of roles (not just one) and, thus, entertaining different relationships between them. For example, in a place or context a relationship can prevail in which humans have more power than technologies, in another the opposite relationship or a mutual relationship can prevail. The same happens for the time category. Second it allows us to register the type of relationship
prevailing in different historical moments and maybe changing over time, but also to register the fact that these relationships may be different in different spaces, places, and contexts. This strategy frees us from the non-contradiction principle and allows us to conceive the possibility of a coexistence of two or three types of relationships in the same historical moment but in different places and contexts or to see how over time all these relationships have occurred since they corresponded to different types of societies.

It is not difficult to think that in the same way in which human beings play many roles, technological artifacts play different roles. For example, mobile media can play a dominant role when they reflect the power that e-actors attribute to them, while they can play a subordinate role when they must succumb to e-actors’ will. This notion of a multiplicity of roles must be seen as connected to the fact that mobile media are involved in many situations, contexts, and moments of everyday life, whereby they can assume different identities, meanings, and functions at individual, social, and political levels, according to the different kind of relationship which is established between them and e-actors. All the literature produced on the practices of use of mobile media in the last twenty years show in reality the different identities, meanings, and functions expressed by them in the different situations, contexts and moments of everyday life.

Furthermore, mobile media, like any other information and communication technology, have their own life cycle. At the beginning, the technological artifact is the innovation designed by research and development departments and then produced by manufacturers. In a second moment, it becomes a commodity, an exchange value which is commercialized, sold, and purchased by buyers. In this stage, mobile media are subject to all the processes of commodification and strong symbolic embodiment, obtained through the social construction of their image by producers and operators. Through advertising, media discourse, and common discourse, the identity of mobile media is shaped with a great power of attraction in respect to possible buyers—and inserted in the imagination of lay persons and in the practices of their everyday life.

However, this first stage is but a part of the process whereby the technological artifact finds realization. It is only if and when e-actors purchase it in order to have full disposition of it and consume it that this artifact can really come into a true existence. The expression of this agency by e-actors through purchasing the object (although they may be influenced by advertising, media discourse, and so on) is indispensable to turn life inside this device, which has a very limited power in this stage. The necessity of this second stage would be sufficient in itself for excluding the full reciprocity of the influence on the part of technological artifacts and human beings, at least in this stage. Ownership of the technological devices gives the e-actor the strength of command and control over them. However, this strength can be very much mitigated by a range of reasons. First, given that technological artifacts are objects that own a peculiar sophistication and dynamism, e-actors’ strength also depends on their skills. In fact the sophistication of the hardware and software considerably limits the command and control by e-actors. Second, the strong capacity of simulation of the real possessed by mobile media (it is sufficient to think of a movie on mobile TV) makes the potential command and control over them on the part of e-actors less directive and often it balances e-actors’ command in their favor.

This intricate dimension of the relationship between the technological object and the e-actor also continues in the consumption process, where mobile media are used. In this stage of their life cycle technological artifacts show a weak power. The e-actors
in fact express the same nervous and transitory consumption of mobile media that is expressed towards any other commodity and that leads the objects to fall into disuse long before being effectively consumed.24

This also would speak in favor of little power in the technological artifact, which becomes self-evident if we consider the duration of their cycle of life in itself. Like that of any other commodity, the life cycle of the mobile phone, for example, is becoming increasingly short, while the average duration of an individual’s life has become increasingly long. In their relationship with technological devices consumers behave like vampires by sucking their lifeblood as briefly as possible and then throwing away their carcass and slag. In the light of this behavior, consumers’ relationship with technological objects appears increasingly oblique, in the sense that objects seem to be purchased more for their immaterial use value rather than for their material use value. In conclusion, if seen from the point of view of its consumption, mobile media appear to be weak interlocutors, which often undergo the initiative of e-actors.25

On the whole, the multiplicity of roles played by mobile media in reality is able to depict the functioning of everyday life in a more adequate way. This multiplicity corresponds, in fact, to the multiplicity of roles played by the e-actor, which has been captured and summarized in the figure of the e-actor. It is worth noticing that in this complex multiplicity of roles played by both e-actors and mobile phones that there is a kind of mutual relationship among them, not in their respective power.

**The Second Level: Mobile Media as Cultural Objects**

The second level of the model includes a conceptualization of mobile media as cultural object by adapting the “cultural diamond,” the heuristic tool proposed by Wendy Griswold for explaining the functioning of cultural life.26 If we put mobile media in the place of the cultural object then we will have the figure of the technological diamond (Figure 2.5).

This heuristic tool has the merit of articulating the notion of society more by also introducing the figure of the producer and of the e-actor. Hence it invites us to look at mobile media from another perspective and hopefully it enables us to understand better how the studies on these devices are framed. Three different fields of studies are considered: the studies on science and technology, those on the social use of ICTs, and those on cultural practices. The social studies on science and technology (STS) have focused on exploring the relation between the two poles—society and technology; the social

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**Figure 2.5** Mobile media as technological diamonds
studies on the practices of use of ICTs have focused instead on the relation between e-actors and technological artifacts; and finally the sociology of culture has articulated the notion of society by also introducing the figures of producers and users. These different traditions should be bridged to allow for a cross-fertilization. Of course, this analysis has been inspired by the seminal work done by Boczkowski and Lievrouw.27

If we bridge the different traditions, we discover, for example, that the tradition of research on the practices of the use of mobile media up to now has explored mainly one side of the diamond—that between e-actors and technological artifacts (c–d)—and that it has left almost unexplored the other sides of the diamond. On the contrary, STS studies have focused almost on the diagonal b–d, that is, on the relation between society and technological artifacts. The three cases considered above in the tripartite model (mobile media as the dominant side of the relationship, or as the weakest, or as an equivalent element in respect to society) resound the tripartite model of classical sociological thought, which considers culture as the reflection of society (Marx) or society as the reflection of culture (Weber), or a combination of the two. So, this is a further element that suggests that the cross-fertilization of the discourse on technologies with that on culture, of which technology after all is an element, is a good operation.

However, the tool of the diamond does not say in which way its four polarities should be conceived. Are they very distinct and separate realities or not? This is a very relevant question since most of the studies on the cultural object outlined above conceive the relationship between humans and artifacts, although bi–univocal and even mutual, as taking place between two distinct entities. However, there is another tradition, the anthropological one, which shows how the different elements of the cultural diamond cannot be considered distinct elements since they are already mutually constructed at the beginning of the relations we take into consideration.

Unexpectedly, a theory advanced by Malinowski in 1944 comes to my aid and helps to clarify this important point. I refer here to the scientific theory of culture that Malinowski has elaborated as a theory of needs and in particular of derivate needs.28 Malinowski argues that the concept of need implies a direct correlation with the answer that it receives from a society that is situated in a particular historical moment. So, the need and the answer to the need are directly and reciprocally connected and constructed.

Within the dimension of a specific need, Malinowski continues, related habits develop and structure themselves into an organized routine. When a person wakes up in the morning, he/she already has an appetite, which will be satisfied by a breakfast that is ready to be prepared and eaten. Both the appetite and its satisfaction occur simultaneously as a routine fact and co-construction. In each vital sequence the impulse is reformed and co-mediated by cultural influences. Malinowski’s analysis is very important because it is able to clarify our initial point—are the polarities distinct or not? His discourse suggests that what is at stake is not simply the relation between two different poles (i.e., e-actors and mobile media as cultural objects), but also the modeling of needs and desires that already contains, shapes, and influences those needs and desires and the subsequent behavior of use of the mobile phone.

This means that e-actors and mobile media are not so distinct entities as they are co-constructed one with the other, at least for the specific needs and desires that pass through these devices. We can even talk of a kind of partial hybridization process that takes place between the two poles of the relation, in the sense that this process means, for the little part that is concerned by these devices, the construction of needs and
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desires that contain a kind of already-designed behavior. In this perspective, the philosophical and sociological metaphor of the mirror which includes Plato as well as Marx and Weber, and which regards the studies on cultural phenomena and practices, should be substituted by the anthropologist metaphor of the hybrid.

Technological artifacts such as the mobile phone are no longer distinct, separate entities, since they both embed each other, even if with opportune distinctions. Mobile phones are increasingly humanized while human life becomes increasingly technological. The humanization of mobile media depends on many elements: their proximity to the human body, for example, as well as the fact that in the last decades e-actors’ power has obliged operators, manufacturers, and in general firms to embed their desires, wills, and aspirations in these devices much more than in the past. But what happens to humans? Are they machinized or not? Much research carried out up to now has clarified that this hybridization is not really bi–univocal but it occurs especially in one direction: the machines become humanized while humans do not become machines.

However, if we recur to the critics of the political economy it turns out that humans are more machinized than in the past. This is not only because they are much more intertwined with the machines, but also because they are threatened as machines by current economic systems. In particular feminist approaches which utilize Marxist theory in an unorthodox way can help us in understanding that mobile media are an instrument of reproductive labor and that this is their major meaning of mobile media in the current political economy of global societies.

Inside this framework the role of emotion has emerged as a pivotal one. Here the glance shifts from the analysis of relationships between e-actors and mobile media to the content conveyed by them. The seminal works of Vincent, Vincent and Fortunati, Hjorth, and Lasén have clarified that the content of mobile communication is not limited to oral and written words and to images (pictures and videos) but it also conveys emotions. Before these works the studies on the mobile phone had neglected this important aspect of human expression and communication. This also happened probably because the theories that are mapped in the tripartite model have rarely considered emotions in their frameworks. Recently it was stressed how beneficial has been the development of domestication theory through the domesticity theory for introducing emotions and the notion of affective labor inside the picture.

Thus an advanced theory on mobile communication cannot leave aside this theme. But I will not dwell on this topic since a specific chapter in this volume is dedicated to it. Seen from this perspective, the asymmetry of power in the relationship between e-actors and mobile media is confirmed, but it seems more moderated than appears at first sight.

Conclusion

As outlined, the discourse on mobile media thus far has presented a tripartite model, which, considering the relation between society and technology as a power relation, was able to map and bridge most of the theories produced in this field. In this chapter, a new model was presented which allows us to overcome the rigidity implicit in them, thanks to the introduction of the categories of time and space in the framework. The new model has several implications for future research since it enables us to put forward the theories previously elaborated in a spatial–temporal perspective and also in the future to produce a more rich and flexible analysis of mobile media as relational objects.


Notes

1. Paul Levinson, Cellphone (New York: Palgrave and St. Martin’s, 2004).
15. Leopoldina Fortunati, “The Mobile Phone between Fashion and Design.”


