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Tomás Sánchez-Criado¹, Daniel López²,
Celia Roberts³, and Miquel Domènech¹

Abstract

This article reports on ethnographic research into the practical and ethical consequences of the implementation and use of telecare devices for older people living at home in Spain and the United Kingdom. Telecare services are said to allow the maintenance of their users' autonomy through connectedness, relieving the isolation from which many older people suffer amid rising demands for care. However, engaging with Science and Technology Studies (STS) literature on "user configuration" and implementation processes, we argue here that neither services nor users preexist the installation of the service: they are better described as produced along with it. Moving beyond design and appropriation practices, our contribution

¹Universitat Autònoma de Barcelona, Bellaterra, Spain

²Universitat Oberta de Catalunya, Barcelona, Spain

³Lancaster University, Lancaster, UK

Corresponding Author:

Tomás Sánchez-Criado, Alliance 4 Universities Postdoctoral Researcher & Lecturer, Social Psychology Department, Universitat Autònoma de Barcelona, Room B5/048, Edifici B, 08193, Bellaterra, Barcelona, Spain.

Email: tomas.sanchez@uab.cat

stresses the importance of installations as specific moments where such emplacements take place. Using Etienne Souriau's concept of *instauration*, we describe the ways in which, through installation work, telecare services "bring into existence" their very *infrastructure of usership*. Hence, both services and telecare users are effects of fulfilling the "felicity conditions" (*technical, relational, and contractual*) of an achieved installation.

Keywords

telecare, older people, installation, configured user, felicity conditions, instauration, Souriau

Introduction

Telecare devices have become widespread in social and health care services for older people in different European countries (Fisk 2003): telealarms allow users to call for help from a distant service run either publicly or privately by a company, connected through the home telephone or, more recently, cell or smartphone (e.g., Botsis et al. 2008; Ryan et al. 2005). Information and Communication Technologies (ICT) development in the past ten years has also led to the expansion of home sensors coupled with intelligent algorithms to detect potential dangerous circumstances and health risks such as gas leaks, falls, or fire (e.g., Brownsell et al. 2011; Doughty 2008).

Telecare services are promoted as maintaining their users' autonomy through connectedness, relieving the isolation from which many older people suffer. There is a growing consensus among policy makers that these services support the values of activity, connectedness, and mobility of active aging paradigms and that the autonomy achieved through ICT connectedness will improve older people's quality of life (Fisk 2003; Loe 2010), helping to address demands for long-term care in aging societies.¹

Broadly speaking, home telecare services claim to offer a personalized service to enhance the independence of their users. In managers' and policy makers' discourses, telecare technologies and services are taken as a "plug-n-play" solution: willing users who want to be supported in their independent living at home only need to ask for it, and the quick and harmless placement of such devices in their homes will immediately enhance their quality of life. What concerns us here, however, are neither these claims nor the promises of telecare services' effects once installed but the practical effects of its implementation. In this article, we focus on telecare services' installations in different locales.

Technology and service installations have not been widely treated in Science and Technology Studies (STS) literature: we suggest that they deserve a closer analysis because they are much more complex practices than the “plug-n-play” idea suggests. Here we ethnographically address the performative “conditions of felicity” of installations in different settings in Spain and the United Kingdom. Reviewing the use of this phrase in recent social science, we address the resources mobilized “in practice” in determining how a performance is said to be felicitous or infelicitous (i.e., successful or unsuccessful) according to a given set of conventions. In our case, this means exploring how an installation is said to be “finished.” Based on several empirical case studies, we make three main points. First, understanding telecare devices as “plug-n-play” solutions conceals the intricate installation practices they entail. Second, paying attention to installation practices shows that services do not preexist the devices’ emplacement, rather they are constantly reproduced in each installation (or, to put it simply, “*no installation, no service*”). Third, users do not preexist the implementation of the service but are better described as produced along with it.

In sum, as several papers have indicated (Milligan, Roberts, and Mort 2011; López et al. 2010; López and Domènech 2008, 2009; López and Sánchez-Criado 2009; Mort, Roberts, and Milligan 2011; Pols and Willems 2011; Roberts, Mort, and Milligan 2012) and as we argue here, neither the telecare service nor its users are pre-given entities waiting to be either seamlessly put in place or encountered as subject/objects already there. Felicitous installations might better be thought of as technicians’ practices whereby each service and its usership are brought into being, hence, allowing us to characterize them as what Etienne Souriau (2009) calls “*instaurations*.” Through installation practices and their *technical*, *relational*, and *contractual* requirements (placing the devices in the home and showing how to use them; choosing the contacts to be called upon in an emergency; and signing the service contracts) both services and users appear as the concrete yet embryonic outcome of a heterogeneous composition process.

In this vein, one of the main contributions of our article might be to reenliven the research program in STS dedicated to the studies of user and technology coconstruction through the detailed ethnographic study of implementation practices of everyday infrastructures and its effects.

Going Beyond “Plug-n-Play”: User Technology Co-configuration and the Importance of Implementation

In the technical gray literature, telecare services are usually presented as “plug-n-play” solutions. In the reflections on implementation therein, made

in the context of “best practice” examples of new devices being tested (e.g., Brownsell et al. 2006), little or no attention is paid to the practicalities of their installation and use beyond scant technological and organizational features.

The extensive STS literature devoted to analyzing the “co-construction of users and technologies” in different contexts is useful in countering such “plug-n-play” understandings. In their comprehensive compilation of theoretical and empirical work in this field, Oudshoorn and Pinch (2005) argue that “being a user” is often poorly defined. The empirical analysis of design and use processes shows that users only emerge through technological practices. STS research in this area highlights: (i) the socio-material relations and definitions that are scripted by design as well as those arising through technological use (Oudshoorn, Rommes, and Stienstra 2004; Mort, Finch, and May 2009); (ii) the multiplicity and diversity of modes of being a user or a nonuser of the same piece of technology, analyzing different sorts of engagements, resistances, and disengagements (Winance 2006; Oudshoorn 2011); and (iii) the very different political positionings that might emerge through technological practices of design, implementation, and use (Callon and Rabeharisoa 2008). These emphases have led to proposals to describe users and services as more or less durable effects of “performances” (Higgins 2007), “figurations” (Suchman 2007, 226-40), or “user assemblages” (Wilkie 2010; Wilkie and Michael 2009).

For the most part, these studies focus either on design processes or on consumption processes.² We believe that another powerful counterpoint to “plug-n-play” understandings of technological systems and services appears in a minor branch of STS work on implementation practices and infrastructure repair and maintenance, as initiated by Henke (1999) and Star (1999) and developed by Hasu (2000) and Hyysalo (2004, 2007). Although Akrich’s (1992, 2002) influential analyses of the “de-description” of technical objects could be thought along the same lines—that is, as a work through which the potential counterprograms of action for a given technological script are made visible (hence allowing subsequent re-inscriptions)—in this article, we would like to avoid positing design as “solution” in order to extend our argument against “plug-n-play” figurations.

As Denis and Pontille (2010) comment, detailed ethnographic study of installations illuminates the infrastructures of different social processes: those backstage, sociomaterial practices that usually only become visible during implementation and breakdown. Installations, as we will show, are processes in which elements beyond “the device” must be arranged so as to frame the conditions of usership and bring about certain technological

functions and uses. Testing the ready-made and normative assumptions of any technological script, studying installations allows us to track debates and conflicts related to defining users that arise before such definitions are stabilized and closed down. In this vein, installations cannot be understood either as the construction of an object by an agent called the “designer” or as a merely technical “plug-and-play” process conducted by the installer. Rather, they become a kind of technoscientific controversy.

Our Ethnographic Studies: Thinking through Installation Closure

The installations we present here are brief excerpts from three different ethnographic studies—all of them part of a wider international project called EFORTT, involving other partners in four European countries—carried out between Spring 2008 and Spring 2011.³ Each study focused on the practical and ethical consequences of the implementation and use of home telecare devices for older people. Two of the studies were conducted in Spain and one in England. Despite their particularities and differences, the publicly funded English and Spanish telecare services analyzed are interestingly comparable in terms of the devices used and the organization of care provided, as they are both part of social services’ strategies to deal with older people’s care. The joint work of selecting, sharing, and analyzing fragments of our field notes over three years led us to theorize the commonalities of the Spanish and English case studies.

Although our ethnographic projects were much broader, analyzing several sites of telecare service provision and use in the United Kingdom and Spain (e.g., call centers, repair and maintenance services, users’ homes⁴), all of them involved “shadowing” telecare service technicians in their everyday duties both inside and outside of the organizations’ headquarters and into the users’ homes.⁵ These duties comprised different activities in the three services, including paperwork, social work, and installation, repair and maintenance tasks. Observations involved detailed note making (including verbatim and photo records when possible) with the objective to produce “thick-description.” On-the-go and in-depth interviews with the workers, users, and informal/formal carers encountered (both during and after the fact) added plurality to these accounts.

What is represented here is a simplified reconstruction of a very rich recollection of actions, verbatim speech, pictures and, sometimes, video and audio recordings. In this article, we do not state the national context of the installations described in order to further anonymize the staff involved, who

could in some instances be seen to be failing to properly carry out their work. Each study was approved by local ethics review boards, and participants gave informed consent when becoming involved in the study.

Thinking through Installation Closure: What Are Its “Conditions of Felicity”?

In our joint research discussions, telecare installations arose as a site through which to observe common problems. But how might we theorize installation practices? Here, following Bruno Latour’s (2011, 2013) recent proposal to expand J. L. Austin’s (1962) speech act theory, we try to understand their “felicity conditions”—that is, those conditions that render an installation properly “done.”

Trials to expand and upgrade “felicity conditions” in the social sciences are far from new. For instance, Goffman (1983, 27), in arguing against Austin’s proposition of a fixed list of six felicity conditions of utterances, attempted “a definition of the felicity condition behind all other felicity conditions,” proposing an analysis of the epistemic and moral conventions, or “social presuppositions,” guiding interactants’ commonsense-making practices. However interesting, Goffman’s argument did not take into account the most pervasive aspect of Austin’s legacy in the social sciences: that is, the call to pay attention to “how things are done with words,” to the “illocutionary force” of “performatives.” This formulation has had profound implications in discourse analysis (Potter 1996) but has also been subject to several amendments. To name but two we could cite: Bourdieu’s (1991a) criticism of the oblivion of “delegated power” conveyed to certain spokespeople in certain institutional contexts (e.g., a judge in court), so that their utterances can have the expected effects as both “acts of authority” and “authorized acts;” and Fraenkel’s (2006) reflections on the mediated and conventional character of performatives in legal texts (such as testaments or last wills), whose effects can only take place in a time distant from that of the utterance, if there has been appropriate care of such written record.

Latour’s proposal should also be understood in the climate of post-humanist theorizing of performativity (Butler 1990), together with its criticism of language-centric analyses and its incorporation not only of gesture but of “mattering” itself as an effect or enactment: the focus would be on the processes of *thingification*, as Barad (2003, 812) calls them, whereby worlds get done through practices where *matter comes to matter* in specific terms (Law 2004). For his part, Latour (1999, 2011, 2013) advocates a very particular use, addressing the different conditions of felicity of what he calls

“regimes of enunciation.” Different “regimes of enunciation” in Latour’s terms imply different conventions of making present or absent specific “things” (e.g., art, legal, or scientific works). These conventions in practice do not determine what has to happen, contrary to hylomorphic accounts in which the outcome of a process of construction is no more than a readymade design translated from the maker’s mind into the world, giving mental form to raw matter. They are rather practical frames that host or allow the recognition of the becoming of specific things through practice:

[...] regimes of enunciation set up what comes next without impinging in the least on what is actually said. Like a musical score, the regime merely indicates the tonality, the key in which one must prepare to play the next part. (Latour 2011, 309)

These insights help us account for the hybrid character of telecare installations. In accompanying technicians in their duties we developed an ethnographic gaze attuned to the “opening up” of closures.⁶ As we will see in the following excerpts, what helped us understand what happened in installations were the sets of loose criteria employed in practice by telecare technicians to “call it quits,” to determine that each installation was “done” (or not). In the following, we propose three “conditions of felicity” of the telecare installations we witnessed and argue that the main interwoven criteria for closure are *technical*, *relational*, and *contractual* (each of these terms having particular and situated meanings and effects).

Exploring the Conditions of Felicity of Telecare Installations

Installing without the User

Installation 1.

We arrive at the new user’s house with a social worker and a technician to install the service. Even though the appointment has been confirmed by phone, nobody seems to be waiting for us. After five minutes, a couple in their sixties, M and R, appear from the next building’s door and invite us in. It seems that the social worker has arranged everything with them and they are the people we are supposed to meet. They lead us through their house to a door in the courtyard. M unlocks a door at the opposite side of the courtyard and we enter a different house. No one is in there. The feeling of being in someone else’s house without permission makes us realize that this is the

home of the future user, who was supposed to be waiting for us. M and R complain: 'She always does what she wants.' They explain that Maria is single and does not have any relatives. They have known each other for many years. She took care of M when she was little and also of their kids. So she is a sort of grandmother for them. Both houses belong to the couple.

The couple arranged the telecare service installation because recently the older woman fell and spent hours on the floor, her cries for help unheard. The accident triggered this idea, which was reinforced by M and R's desire to travel and get to know other countries and cultures before they grow too old. But they could only do that if Maria is looked after.

Whilst the social worker speaks with them about Maria (filling the forms with her data given by the neighbors and completing the authorization sheet for the house keys they will give to the telecare service to hold), the technician starts the installation, placing the device next to the phone. A short while after the neighbors comb the area for Maria and we wait.

When they come back without her, the social worker asks for the keys. R says that Maria does not want to give them to the telecare service: 'she wouldn't have opened the door for the installation hadn't we been here.' R hands the social worker the keys of all doors. This is quite striking: the social worker accepts the keys knowing that the woman does not want the service to have them.

At this point Maria enters the house and things start speeding up: as she walks up the stairs, M and R keep their voice down. The social worker says somebody has to sign the authorization for the keys, and M does it on Maria's behalf. When she gets into the living room, they keep talking without mentioning the keys. Instead, M and R talk about 'the device' and hang the pendant around her neck. They tell Maria that she only has to press the button whenever there is something wrong. They lead her to the device: 'Just press the button to check if it works,' then to the table to sign several papers. The social worker explains that they will give her a card with a phone number to call in case of emergency when she is outdoors.

Maria says she is a bit confused but does not react by rejecting the service. She is skeptical: 'I thought telecare would also work outdoors' and says that 'if you have to do everything so fast, it is not properly designed for elderly people.' Reacting to her skepticism, R goes back to: 'Just press the button, that's the only thing you have to know.' Despite her confusion, she says 'yes' to everything and tries to figure out how to wear the pendant comfortably. After being absent for most the installation process, Maria is now a telecare user.⁷

Installation 1 shows how installations are not only a *technical* but a *relational* process through and through: in many cases, the user's carers

or relations are involved in requesting the service and/or accompanying the old person during the installation. The first problem installers often encounter in their work is uncertainty about who wants the service and why. Sometimes the installer realizes that the older person is quite reluctant about telecare when he or she does not open the door when the installer arrives. In this example, Maria's neighbors allow the installation to occur: in fact, they seem more important than the intended user, who is not present until the very end. The neighbors are important not only because the user is absent but also because they have arranged the installation appointment. In fact, many installations could not take place without people other than the defined end user pushing for the installation. Such others often want the user to behave as such.

But installations also entail *contractual* practices. After the technical work is over, the installer—or sometimes someone else from the service in charge of paperwork in the Spanish case—asks the user to sign the service contract forms (sometimes they have already been prefilled but other times this is done *in situ*). These contain information to be registered in the database of the service and later used by the operators in case of need. In the Spanish fieldwork, users were sometimes asked to hand over a key to their property; in the United Kingdom, keys were usually placed in a key safe outside the house. In both countries, it was also common to leave them with a local contact whose details are noted on the database. Handing over keys was usually a source of conflict in Spain (as we have seen in Installation 1): many users fear someone could take advantage of them. For this reason, users usually receive a detailed explanation of the key custody system—an explanation that both emphasizes its high standard of security and stresses the fact that handing over the keys makes the service more effective.

In what follows, we would like to pay attention to such processes and their concomitant conditions of felicity.

Technical Condition of Felicity: Where to Put It?

Installation 2.

When we enter with L, the telecare technician, to the enormous flat in a very classy neighborhood of the city ME (aged 96) greets us warmly and immediately after that she starts repeating several times that she indeed wants the telecare service because she was a previous user of the same company in a different city and begins a very detailed story about her decision to move in order

to be nearby her children. Just a few seconds after we arrive, her son and his wife turn up. They live in the flat below and want to check the whole process.

Some small talk, greetings, and handshakes follow . . . After that L unpacks the device's box and starts checking around the house while ME follows him (and her son after them) repeating nonstop that she does not want the device to be in a visible place: "I would like it to be nearby my bedroom, because the girl [the maid who stays over every night to take care of her, paid by her son] sleeps over there," she says while pointing at the next door in the corridor. I stay in the living room awaiting, talking to the son's wife while sitting in the sofa. However, L nods and shakes his head, going up and down the corridor in silence, murmuring that he is not sure and searches the house for phone jacks and power plugs to connect the telecare terminal to. 'There are two possible places,' he says eventually, 'either near the bedrooms or in the main entrance.' Mother and son are against placing it in the main entrance. Both argue she is a bit deaf and closes her bedroom door at night.

L emphasizes that the terminal should be placed in the main entrance. His argument is technical: 'the devices have to be in a place from where the user could be heard and where the user could hear the terminal's audio signal.' Furthermore, 'the main entrance has an advantage,' he points: 'there is a handy plug,' which is beneath a piece of furniture covering a radiator, where the terminal could be placed.

In order to convince them, the technician suggests provisionally installing the terminal in the entrance to see if it works and if she could be heard whilst in her room with the door closed. 'Being heard is more important than hearing should an emergency occur,' he adds. Once everything is ready the technician places the pendant around her neck and pushes the alarm button. The terminal rings the service's call-center and an operator speaks with the technician. The sound check turns out to be humorous: ME enters her bedroom and starts simulating a fall, yelling 'help, help, please somebody help me!' until her son enters the room and tells her that she can stop because the operator has said the sound was 'loud and clear.'

After this test everyone agrees that placing it in the main entrance is OK. From this moment everything goes smoothly: the technician turns the provisional arrangement into a stable one, they fix the paperwork. Two hours later we leave.

In installation 2, ME's contacts are also important to the installation process: they ensure that this former user will become a user again. But something else appears even more salient: positioning the terminal emerges as being of great importance for L. This is very common: once the installers

are allowed in the house (if they are), the first thing they do is search for the landline wires. They need to choose the best location for the telecare device to be plugged in (normally next to the main telephone). The telecare terminal must be able to call the monitoring center even if the telephone is off the hook and the operators must be able to hear and be heard throughout most of the house. To accomplish this, the device must be plugged directly into the incoming landline with the telephone plugged into it and placed as close as possible to the most frequently used spaces of the house. It may be necessary to drill holes in walls to feed cables through: this takes time and sometimes troubles the user.

However mundane, quarrels about defining the terminal's proper location like that witnessed here are a crucial milestone for the service installation. L's technical criteria are opposed to the aesthetic concerns of ME and her son; they are also a matter of her self-presentation to guests. L manages to convince ME by improvising a provisional solution that meets his technical requirements. These technicalities define the set of possibilities that make the telecare service available.

Locating the terminal is a process of negotiation where the properties of the device and the user are not ready-made but emergent. In a similar fashion to what Denis and Pontille (2010, 443) argue concerning the placement of signs in the Paris subway, the "proper place" is neither a potentiality inscribed in the materials used nor an available spot ready to be filled in the environment. Finding the right spot entails a negotiation of the installers' technical criteria with the requirements of the future user and the material constraints of the house in which the installations take place. Some installations fail due to rejections of the places where the devices should be installed, to the bad conditions of walls or the house's power supply, or to problems arising from the phone connection.

Once the cables are fixed and plugged in, the installers program the devices by typing a series of numbers and letters corresponding to functions required. To check if the devices have been programmed correctly, the installer presses the red button on the terminal and tests the pendant in different rooms. If the device makes the call to the monitoring center, then the pendant is properly programmed and the signal between the pendant and the terminal is strong enough. In our cases, at that time the operator usually then reads out loud the user's details for confirmation. The installer asks the user if they can hear the operator easily; if not, the volume can be increased. The operator gives a short presentation of the service to the user and warmly welcomes them. They usually explain that it is not necessary to be at the terminal while talking, as they are able to hear the user's voice from a long

range. Users normally greet the voice coming out from the device and the installer tells their operator colleague that they are performing an installation.

After being assured that the device works properly, the installer asks the user to wear the pendant and test the red button. As installations 1 and 2 show, installers also have to ensure the pendant is placed in its proper place around the neck of the user, who must be taught how to press it whenever necessary (and not only when there is a perceived emergency) and advised that it is important to check regularly that the device works properly. This placement and associated demonstration practices (“This is how you press the button”) act as another practical sign for installation closure in technical terms.

Positioning the devices and demonstrating their use amounts to the definition of a felicitous installation in *technical* terms: it entails opening up space in the users’ homes for users to connect with the service, which at the same time means attuning devices to particular gestures (wearing the pendant, pressing the right buttons; see López and Sánchez-Criado 2009). But this implies certain particular effects: whereas wiring the home through the equipment would be an important practical definition of the connectedness the services claim to offer, the use demonstration performs a particular “technique of the body” (Mauss 1973) which has an embryonic individualizing role for the user: through the act of putting the pendant around his or her neck, as well as through the beginning of a training process, a detachment from any other person involved in asking for the service is enacted.

Relational Conditions of Felicity: Who Will Be the Contacts?

However, this connection and detachment of individual-yet-connected users undergoes specific transformations through another small yet very important process that takes place during installations when users are asked to name the useful contacts that should be called for or called upon (to provide information or help) should an emergency occur.

In fact, no installation can be declared successful without a relational configuration of usership, entailing a concomitant decomposition and reconfiguration of social relationships out of which independent-yet-connected individual users might emerge. To do so, the services seek to translate existing relation bonds into a new category, “contacts.” Sometimes, as in installations 1 and 2, several of such people are present, making the installation task an easy one. However, two excerpts from other cases point at the complications that are sometimes involved in this necessary relational translation:

Excerpt 1.

The installer tells us that sometimes the users want to have all of their children included as contacts, including those who live far away, saying things like ‘He is also my son and I love him.’ Others tell the installers: ‘Don’t call my daughter, ‘cos she does not care about me,’ even though she was put on the contact list. In such cases the installers include memos explaining the situation (Field note excerpt).

Excerpt 2.

After performing the technical aspects of the installation the telecare worker asks the older woman—who lives on her own in an inner city—who might be around for her and, hence, who the contacts would be. She says that they [the service] should first call her cousin, who has keys to her house and lives downtown. The second one would be M, a friend she knew when working together who has no keys. The third one would be E, a person the woman knows from a long time ago and with whom she has a very close relationship. When asked by the installer if she would qualify this relationship as relative or friend, the woman specifies that she is not her friend, but that she is ‘a reliable person’ who has keys because she cleaned her house for a long time. Anyway, she might not be a good first contact because she still works and moves often. (Field note excerpt)

When the *technical* features of the installation have been secured, installers need to do another check, a *relational* one. In some observed installations, “contacts” had been preselected by the services’ social workers through interviews with the users. Here installations became occasions to ratify such previously provided contact information. In other examples, the installation served as an occasion to explore the user’s relations and their potential usefulness to the service. In any case, be it before the installation takes place or at the very same time of the installation, services need to explore the relevant relations of the user. In the latter cases, installers ask general questions to the older people such as who cares for them, who they care for, and who they have around for help in case of need. The formulation of these questions is always site-specific and there are no protocols.

Installers have to be very tactful because such occasions might easily turn into emotional descriptions of complex relational webs of kinship, friendship, or neighborhood (see Excerpt 1). They need to carefully dodge emotionally laden confessions of the users’ problematic relational issues.

Their task is not to identify the relational problems of the user at hand, but rather his or her relational resources so as to turn them into the services' "contacts." Indeed, in each installation, the technicians have to leave the home having identified, ranked, and written down in the services' forms: either people able to provide useful information on the user's health condition, medication, and habits, or special features of the user's house that might become relevant; or people able to reach quickly the user's home with door keys, in cases where they have not been handed out to the service. Once inserted in the database, this information will be essential for the work of the services' operators (see López and Domènech 2008; López et al. 2010; Roberts, Mort, and Milligan 2012).

As is evident in Excerpt 2, telecare does not denote family "relatedness" (Carsten 2004) as a prerequisite (in fact, family are sometimes explicitly avoided as a potential source of dependence), instead capturing any variety of the user's relations (be it kinship, friendship, neighborhood, or any other), but not focusing strictly on the significance given to them by the user. Services do not reject preexistent sociality or "relatedness," but need to test it and format it in a very particular way. What counts as a good "contact" has more to do with service utility criteria in case of an emergency than with emotional closeness. This is why "good children" for the users might not be "good contacts" for the service. The identification of such people as "contacts" does not entail that these people become a stable relation for the user and the service from that moment on. They might be changed any time at the request of the user or because of the services' experience of their "lack of utility" as shown in emergencies managed after the installation.

In sum, a felicitous installation implies putting in place a *technical* and *relational* configuration of service usership. The articulation of an individual-yet-connected user information in telecare services is a *relational* effect of felicitous installation work achieving the selection of the appropriate contacts for the service to work. The relational practices undertaken in the processes of contracting and installing the service, as well as the reconfigurations of the roles assigned to them through installation, make space for a particular configuration of the user: people connected to "contacts" who can help them grant their autonomy.⁸

But this is not enough. The services need to fulfill a final condition, the *contractual* regulation of the technical and relational tasks that assure that such a service can be given to an independent-yet-connected user living at home. Our next field note shows the articulation of this last condition.

Contractual Condition of Felicity: Will Someone Sign the Contract?

Installation 3.

When the installer and I arrive at the small suburban house, the older woman takes a long time to answer the door. After the installer explains who he is, she says: 'You'd better come in then' and we follow her through to the lounge. The woman has a largely finished hot meal next to her lounge chair on a tray table. The installer asks if we are interrupting her lunch; she says no and invites us to sit down on the sofa, leaving the television on.

The installer describes what he is there to do. The woman's social worker has prescribed telecare because the woman has had a fall. He knows from the social worker's notes that she also recently left a pan too long on the stove: hence the social worker has prescribed a smoke detector and a heat detector as well as a pendant alarm. The woman's son lives in South Africa and her only contacts are neighbors in the street (who, it later turns out, had been the main contacts for the social worker and were meant to be at the house when we arrived).

The conversation is very difficult. The woman says she hasn't heard of the social worker and seems to have no memory of a conversation about telecare. When the installer explains the service, she agrees it sounds good but asks about cost. He cannot answer this difficult question, and can only state the maximum amount she might have to pay. She thinks this sounds expensive. The woman has four visits from a carer each day and a meal delivery but is unable to tell us whether she pays for these or not (if the state pays she will get telecare for free, if not, she will have to pay on a sliding scale according to her income). The conversation is repeated several times reaching no conclusion. Eventually the installer says that he will ask the social worker to ring. The woman asks him to write down the social worker's name, telephone number and what it is about on a notepad to help her remember. (Although actually the social worker will also be unable to answer the question about cost—this is a matter for a different actor).

The installer checks the location of the phone and electrics and says the entrance hall will be a good place for installing the terminal. He leaves without installing anything, although he could have pressured the woman into accepting (she had already but has forgotten about this earlier agreement). The installer is sanguine about 'wasting' an hour on this—he is still being paid. He does not want to install unless the client is happy. Despite the woman's obvious memory problems, he thinks it is significant that she's 'with it' enough to ask about cost.

In installation 3, the potential user's memory problems make the installation impossible. Having earlier accepted telecare but not being able to recall this when the installer is there, makes everything extremely difficult: no service contract can take place in this situation without impositions. And impositions are not the best tactic to "support autonomy" (as the services advertise). An installation requires someone to accept the service and sign paperwork to that effect (as we also saw in installation 1). This paperwork (the telecare contract) delineates the legal personae involved and the terms of the agreement that binds them through the "validation regime" of the signature (Fraenkel 1992; Pottage 2004).

Such signature acts as a symbol of a felicitous installation in *contractual* terms. This is hardly a specificity of telecare. In fact, signatures have been historically employed as validation techniques in different "regimes of identification" (Caplan 2001). In telecare, signatures are used for validating the durable individuality and conscious willingness of the signatory of the telecare contract. However, it should be noted that signing the telecare contract has performative effects on the individualization of the telecare user. Signing the contract is the final action performing the independent-yet-connected user. As Marie-Andrée Jacob (2007, 250) puts it in her analysis of informed consent practices, "[...] the documented form constitutes the person even more than it retains her traces."

Through the use of a validation technique that acts as a guarantor of the durability and continuity of the individual, signing becomes an act of erasure or alterization (Derrida 1971, 20-21). With the signature the relational actors who may have provoked the installation (as in installation 1) or might have supervised it (as in installation 2), as well as other more temporary subject positions (e.g., not really wanting it but accepting because the originators are present during the installation) are turned into epiphenomenal elements; something "merely coincidental" that may occur but that has no enduring effects in defining the individual user. Signing ultimately produces the effect of a willing and conscious independent user with contacts who wanted a service to be installed in her home, as in Derrida's (1986) analyses of the performativity of "declarations of independence."

Once signed, these infrastructures defining the proper user are relegated to the background (Goffman 1956) and the contract thereby enacted starts regulating several things: (a) when the service can open the communication line (when the button is pressed; when the sensor patterns show concerning results; and to check that the system is working); (b) when the service can access the house in the wake of an emergency (only if a legally defined alarm has been engaged, be it through a button pressing or from the

statistical data gathered from the sensors); (c) the storage of data in the service's databases as well as the protection of the user's and her contacts' personal information; and (d) the ownership of the devices (although placed in the users' home, they remain a property of the service).

Felicitous Installations and the Instauration of Infrastructures of Usership

Given their powerful effects in producing particular users, installations might be taken as something like Bourdieu's "rites of institution":

To institute [. . .] is to consecrate, that is, to sanction and sanctify a particular state of things, an established order, in exactly the same way that a *constitution* does in the legal and political sense of the term. (Bourdieu 1991b, 119)

Despite the effect of user's *investiture* there derived, "accomplished by a sole agent [the installer] duly empowered to accomplish it and to do so within the recognized forms" (Bourdieu 1991b, 125), the installation process as a whole might instead be considered to be one of *instauration*, an open material trajectory of practices through which the work appears and disappears depending on what the maker does to open space for its becoming. This concept was coined by the French philosopher Étienne Souriau (2009) and has been recently revisited by Isabelle Stengers and Bruno Latour (Stengers and Latour 2009; Latour 2011) as an interesting new departure to redefine constructionism, challenging the usual hylomorphic approaches. For Souriau (2009, 195-96), the work of making is better understood as a "work to be done" (*œuvre à faire*) in a process where there is always partial darkness, partial otherness; plenty of things veiled and undecided.

Such reflection helps to highlight the creative and impure character of telecare installations. These involve dealing with people and their spaces, paperwork and pieces of technology, all of which delimit certain boundaries. In line with this, installers could be thought of as actors whose definition depends on how boundaries are set up along the installation process, where both service and user appear as blurry figures appearing and disappearing throughout the process of setting up the service.

Nonetheless, "work to be done" is eventually "done" or closed down. For Souriau (2009, 213-14), closure is the stumbling block of instauration. As in instaurations, in installations many things can happen in the open trajectory followed by the installers. But installers need to reach a closing point and to follow some paths, however loose, to meet criterion of finishing

their installation work. Achieving closure ensures the desired effects of organizations (providing a telecare service to an individual-yet-connected user): but neither telecare users nor the services themselves preexist the moment of the installation. Rather they are performed through the practices of the installers who weave together the alleged preconditions the services need to operate. We have argued here that installations entail different felicitous conditions for the installation of telecare usership; these are *relational* (different sorts of personal relationships of friendship, kinship, or neighborhood need to be turned into “contacts” who might be asked to collaborate in case of need), *technical* (the home and the way of practicing it need to be correctly attuned to the service protocols of emergency and user monitoring), and *contractual* (a contract must be signed, fixing the technical and relational arrangements, and relegating the interdependencies that support the user into the background, hence enacting a figure of an autonomous person who freely agrees to have the telecare service and cooperate according to certain precepts).

Successful telecare installations, we suggest, are never mere installations of devices but felicitous instauration of a “care arrangement” (see Schillmeier and Domènech 2010) that also entails articulating a particular kind of service and its usership. Fulfilling the three felicity conditions of the technicians’ practice amounts to the definition of a good installation in the service’s terms. The practical outcome of such good installations is to enact an *instaured* service and user, also giving the impression that they preexisted.

In sum, installations are not mere plug-n-play solutions but messy practices that installers struggle to close down in order for them to have the desired effects: to install the service, putting in place a particular infrastructure of usership through particular relational, technical and contractual work. In this process, some things become visible—these conditions allowing users to be “drawn together” (Latour 1990) in the services’ databases, acting as the representational devices with which they are managed from that moment on—and others are rendered invisible (e.g., the relations who requested a service that the performed user did not want end up being “mere” contacts).

Concluding Remarks: From Instauration to Restoration

As we see it, thinking of installations as processes of instauration would constitute a refreshing empirical way to analyze the effects of technologies such as telecare on people’s lives, as well as a grounding for new empirical work which might stimulate debates on the ethical and policy implications of new technological implementations and their promises. An ethnographic

focus on the practices of installation of telecare devices at home enables us to approach what the services offer not as the result of specific technological scripts shaping such users in advance or particular creative appropriations of technologies by active users, but, instead, as open processes of instauration through which “scripts” and “users” appear as effects of trajectories arranged through continuous performances by the technicians, the end users themselves, and their significant relations. Achieved installations entail a “good enough” emergence of the telecare user and service. Each installation would have to struggle with other configurations of home use, other subject positions, and other ways of arranging relatedness already in place (see López and Sánchez-Criado 2009). The results of this are not singular or stand-alone products or entities.

Putting telecare in place does not mean “giving birth” to concrete and coherent users but rather bringing into existence a precarious *infrastructure of usership*; an infrastructure rendered visible as an ongoing problem to be solved, something that will require constant maintenance work from the service, users, and their contacts. The concept of instauration continues to be useful in discussing the processes beyond installation, for it refers not only to bringing users and services to life through installations but also to the continuing procedures undertaken to preserve users and services, given their frail and troubled existence. Latour (2011, 311) writes: “No being has substance. If it persists, it is because it is always restored (the two words restoration and instauration have the same Latin etymology).” Following the insights of the sociology of maintenance and repair (see Henke 1999; Graham and Thrift 2007) and reinvigorating their connections with the ethnomethodological insights on the constant need for repair of the social, we suggest that this process of restoration in telecare applies not only to devices but also to telecare users as entities that services require to operate. What is constantly restored through repair and maintenance are the devices, the users, and the services themselves (Orr 1996). But that is different story worth telling another time.

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Notes

1. For a discussion of the notion of active aging and the different political and analytical ways of implementing it, see Stenner, McFarquar, and Bowling (2011).
2. For instance, studies of consumption have focused on “domestication processes” whereby technologies are “appropriated” (symbolically and practically) and resignified in the process of adoption (Haddon 2007; Lie and Sorensen 1996).
3. This research is part of a European Commission funded project entitled “Ethical Frameworks for Telecare Technologies” (2008-2011): <http://www.lancs.ac.uk/efortt/>. It entailed ethnographic observations, individual and group in-depth interviews, citizen panels, and focus groups in the United Kingdom, Spain, Norway, and the Netherlands, involving workers, users, and informal/formal carers of different social and medical telecare and telemedicine services.
4. In Spain: Organization A consisted of one call center (with twenty teleoperators and one management officer) and a service management office (including six installers, five social workers, three secretaries, three service managers and around 1,000 volunteers working locally) providing services to around 6,500 public users and an undisclosed number of private users; Organization B consisted of one call center (with thirty members of staff) and a management office (with eleven workers and around 1,070 volunteers) providing services for 8,065 private users and 1,845 public users. In England: Organization C’s call center employed—one to four teleoperators, one manager, and three installers to provide “telecare” (pendant alarm plus other sensors) to 540 users and a pendant alarm service to 10,000 users; while Organization D deployed one to three teleoperators, one manager, and one installer to provide telecare to approximately

150 telecare users and 4,000 pendant alarm users. Both UK organizations were part of larger bodies involved in older people's housing. Users pay for telecare on a sliding scale according to income and level of need; many receive the service for free.

5. That is, in-depth nonparticipant observation. The nonparticipatory, fly-in-the-wall-mode, character of our fieldwork became "compulsory" after negotiating with the different services in which we performed as ethnographers (acting occasionally as assistants or "copilots" giving directions or keeping and handing the tools or forms to the workers when needed), because of their reluctance to run risks derived from our noninsured/nonemployee status.
6. See Schegloff and Sacks (1973) for an exploration of this sort in conversational analysis.
7. We witnessed a similar case in the United Kingdom where telecare was installed for a user who was in hospital having had a stroke. The service was arranged by his wife in preparation for his return.
8. Given the importance of individual connectedness achieved through installations, we might argue that the conditions of telecare usership do not restore modernist notions of autonomy as a precondition of citizenship. Rather, telecare services craft a somewhat different version of autonomy that is networked, connected, and interdependent yet based on individual rationality over oneself, self-care, economic and moral independence, and property (see Rose 1999; Barry 2001). For a more developed account of this, see Sánchez-Criado and Domènech (2011).

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Author Biographies

Tomás Sánchez-Criado holds a PhD in social anthropology and is Alliance 4 Universities postdoctoral researcher at Universitat Autònoma de Barcelona. He studies the material politics of different mundane infrastructures and market products for self-care, independent living, and urban accessibility. He is particularly interested in the ethnographic study of these welfare arrangements from the sociomaterial distributions of tasks implied in their design and maintenance.

Daniel López is tenured assistant professor in the Department of Psychology and Education at the Universitat Oberta de Catalunya. His work revolves around the ethnographic study of aging, technology, and innovation. His main research interests are the biopolitical and technoscientific construction of later life and the production and maintenance of care arrangements.

Celia Roberts is senior lecturer in the Department of Sociology and also the codirector of the Centre for Gender and Women's Studies at Lancaster University. As well as telecare and older people, she works on reproduction, pharmaceuticals, and sexual development.

Miquel Domènech is senior lecturer in social psychology at the Universitat Autònoma de Barcelona. His research interests cohere broadly in the field of science and technology studies (STS), with a special focus on the relationship between care and technology and on citizen participation in technoscientific issues. He is the coordinator of Group of Social Studies of Science and Technology (GESCIT).