El presente volumen incluye seis trabajos. El primero, analiza programas gubernamentales en la región de Atlacualco, México, y formula recomendaciones. El segundo, estudio de caso—trabajo etnográfico—en una clínica para pacientes con problemas neuromusculares. Sus datos, evidencia el indispensable uso de la infraestructura de seguimiento—sistema sociotécnico—que garantiza el proceso de rehabilitación. El capítulo tres sostiene que “a más de una década de haberse inaugurado [...], el aspecto multicultural en el sistema educativo nacional [...] muchas [...] prácticas encierran [...] formas de racismo institucional”. Cuarto y quinto capítulos corresponden a críticas literarias sobre sendos autores: Julio Cortázar—El otro cielo y Texto en una libreta—y Cristina Rivera Guevara—Nadie me verá llorar—. El último capítulo subraya, con Weber y Popper, la importancia de garantizar la adquisición de competencias profesionales que preparen a los estudiantes de ciencias sociales y humanidades a enfrentar el mercado laboral, y resolver problemas en el mundo como futuros ingenieros sociales.
TÓPICOS EN EDUCACIÓN Y HUMANIDADES
TOMO I

Pedro Canales Guerrero (Coordinador)
Infrastructures, boundary objects and mundane artefacts: configuring patients and diseases through filling forms

Laura María Morales Navarro

By mobilising the notions of “infrastructure” and “boundary object” as developed by Susan Leigh Star, this text attempts to explore the role of mundane artefacts in the configuration of patients and diseases. To do this, it takes as a case of study the rehabilitation process of people with neuromusculoskeletal disorders and amputees at a rehabilitation center.

The first argument that this text develops is that filling forms exercise a role as information infrastructures that have an active role in the configuration of patients and their diseases. Although, they are taken for granted, such infrastructures are crucial in the rehabilitation process, as they are also very fragile artefacts.

The second argument is that filling forms act as boundary objects that, both, serve as links between different stages of the process, different experts, different clinical areas, different medical interventions, etcetera, as well as provide a certain logic, structure and coherence to the rehabilitative interventions carried out by specialists throughout the rehabilitation process.

Many different actors, both human and non-human, get involved in the clinical and rehabilitative management of patients with neuromusculoskeletal disorders and amputees. It results very straightforward to recognise some of them, medical experts and technological aids are some examples. However, despite being crucial for the rehabilitation process, other actors are invisible most of the time, filling forms are some of them.
The patient’s rehabilitation process can be analysed, for methodological purposes, as a series of different stages or sets of practices through which the patient moves all along his or her rehabilitation treatment program. Inside each of the rehabilitation areas, several phases can be identified while exploring the emergence and assemblage of rehabilitation collectifs. In this sense, looking at these different sets of activities, might bring light into the hidden actors and practices that crucially contribute to the configuration of patients, diseases and rehabilitation.

In the case of patients with neuromusculiskeletal disorders, the gait assessment is one of the first stages of rehabilitation. For a gait assessment to be performed, it is necessary to set the required conditions in order to configure a particular gait collectif that enables such an assessment to be conducted, this is, that allows for the interweaving of specific and (more or less) coherent and durable relations between patient and prosthesis. This configuration entails a series of different coordinated and distributed actions (Law, 1994; Mol, 2002) between the many heterogeneous participants involved in the gait assessment –including patients, medical specialists, administrative staff, patients’ relatives, request forms, prescriptions, rehabilitation protocols, gait analysis systems, diagnostic techniques, etc.–, which themselves constitute part of the material infrastructure that sustains the rehabilitation process.

The preparations are diverse and complex, and include the preparations of experts, patients, technical equipment, bodies, and very importantly paperwork and filling forms. The following excerpts of ethnographic observations attempt to provide a brief glimpse of the role of these mundane artefacts in the rehabilitation process.

**Story 1:**

December 19th. The 9:00 am assessment has finished and the patient has left. Now we wait for the next patient to arrive. In the meantime, I look through my field-notes and write down some of my thoughts, while Dr. Campos –the biomedical engineer– looks through the next patient’s medical records and through the assessment request form sent by his medical companion. According to what it says on the computer monitor, the patient is a young toddler who has been diagnosed with
When performing a gait analysis, different kinds of “interferences” might be present, such as those mentioned in this field-note excerpt. These interferences are commonly referred to as “noise”, and they can be caused by a diversity of variables (e.g., by insufficient distance between markers when placed in specific anatomic landmarks, as indicated in the field-note). In consequence, when processing the data, the specialist must “clean” all that noise before he can interpret the “real” data.

Psychomotor Development Retardation (PDR), Dr. Campos tells me. This will be the child’s first gait assessment; his medical companion and team of interconsulting [doctors] are trying to decide whether a treatment program with orthotics could be a good option, and if so, the kind of devices that would be appropriate for him, for this reason, they have required a complete evaluation. The patient’s assessment request form asks for an EMG to be performed, so this time we will also need to use the TET-Unit, which we have already prepared for the analysis. Dr. Campos tells me that, since the patient is a toddler, the markers might be very close to each other when attached to his body, this could cause difficulties in the data collection because the infrared cameras could get confused and process the information in an odd way—they might miss some of the markers or, on the contrary, they might perceive markers that do not exist. This would make the data collected very difficult to “clean up” from all that “noise”¹ [...] Therefore, he says, we will have to pay close attention to all those issues when conducting the assessment.

**Story 2:**

April 12th. It’s quarter to eight in the morning. Dr. Valle—the rehabilitation specialist— and I look through the data from an assessment-conducted days ago while waiting for the 8:00 am patient, a nine year-old girl with mild Cerebral Palsy (CP). On another computer screen we have a physical examination format ready to be filled with information gathered during the patient’s assessment.

Time passes slowly and the girl has not yet arrived…

Now, a conversation between Dr. Valle and Dr. Campos unfolds about some mistakes apparently made in several of the examinations conducted in the past few days. They do not know the cause of these mistakes yet, but decide that they will check the equipment and recalibrate the laboratory later in the day. From time to time this

¹ When performing a gait analysis, different kinds of “interferences” might be present, such as those mentioned in this field-note excerpt. These interferences are commonly referred to as “noise”, and they can be caused by a diversity of variables (e.g., by insufficient distance between markers when placed in specific anatomic landmarks, as indicated in the field-note). In consequence, when processing the data, the specialist must “clean” all that noise before he can interpret the “real” data.
Among orthotists and rehabilitation specialists, the word *kafo* is used as a shortened version of Knee-Ankle-Foot Orthosis which, as its name indicates, is an orthotic device that goes from the patient’s knee to his foot.

For confidentiality reasons, throughout this book I avoid referring to patients by their names; instead, in field-note excerpts as well as text, I have substituted their names for the words: *child, patient, he or she.*

Story 3:

February 23th. Our next case has just arrived: A little boy who can hardly articulate some words [...] sounds that result almost incomprehensible for everyone there but his mother. The child uses a specially designed padded walker which allows him to lean on two cushioned steel bars that give support to his arms while walking, and which also includes a small seat so that he can sit down whenever he gets tired or when the pain is so unbearable that makes it impossible for him to keep walking.

It is very visible how badly his gait has been affected by the numerous disorders he has been dealing with throughout all his life.

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2 Among orthotists and rehabilitation specialists, the word *kafo* is used as a shortened version of Knee-Ankle-Foot Orthosis which, as its name indicates, is an orthotic device that goes from the patient’s knee to his foot.

3 For confidentiality reasons, throughout this book I avoid referring to patients by their names; instead, in field-note excerpts as well as text, I have substituted their names for the words: *child, patient, he or she.*
It is too difficult and painful for him to give even a couple of steps […] In the case of this patient, the gait assessment will help doctors to determine the kind of treatment path to follow (which can involve either surgical, pharmacological or orthotic management or a combination of them). Dr. Campos looks at the request form sent by the child’s orthopaedist on the computer screen and the following conversation takes place:

Dr. Campos: [...] So, his doctor is requesting kinetic and kinematic analyses, with no electromyography […] Did she explain to both of you what this evaluation was about?, –the child smiles and articulates a sound that we all take to be a yes–.

Mother: Yeah, well, she mentioned that he would be asked to walk on a platform several times […]

Dr. Campos: Yeah, that’s right; that is what we are going to do today. First, we are going to take you a picture, and then you are going to walk from here to that wall [...] But before we start, the doctor is going to examine you and, after that, we are going to attach these little spheres to your body, so that those cameras can see you while you walk”, –pointing to the infrared cameras–. Could you take off his clothes and leave him only with his underwear?, –to the child’s mother–.

Mother: Oh, by the way, the doctor also asked me to tell you if you could order one of those little cars, for him to move around.

Dr. Campos: Little cars? What kind of little cars? […]

Mother: Like those that some children are using outside… I have seen several of them here at the centre.

Dr. Campos: Oh yeah, the carts, those are hand propelled carts4 […] Did his orthopaedist say that? are you sure? […]

Mother: Yes, she did […] –she said– that maybe he could use one of those instead of his walker.

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4 A “hand-propelled cart” is a device that some non-ambulatory children may use as a mobility aid. Different kinds of carts are used according to the user’s needs. Those most commonly used have a padded plastic base and back support, the cart’s base is often at ground level and has wheels on each side. As its name indicates, the cart is propelled by pushing its wheels with the upper limbs, while the lower limbs are kept still in a straight position.
Dr. Campos keeps silent for a moment, takes a deep breath and the conversation continues like this:

*Dr. Campos:* Well, it does not say anything about the cart here…–He is abruptly interrupted by the patient’s mother.–.

*Mother:* Maybe he could try on one of them today, after the test… In that way, it would be ordered this week, so that he could have it sooner; otherwise he would have to wait until the next appointment with his doctor –the orthopaedist–.

*Dr. Campos:* Look, I can’t prescribe or make a patient to try on anything that has not been indicated in the request form […] Besides, I find it quite strange that his orthopaedist considered that he could use a cart, because they are counter-indicated for children with the sort of disorders he presents

*Mother:* But if he had a cart like those, it would make it easier for him to move around.

For what she says and how she says it, as well as for Dr. Campos’ reaction, it becomes clear to me that the child’s orthopaedist did not order any cart for him, but rather, it was his mother’s idea.

*Dr. Campos:* With the disorders that he presents, if I gave him a cart, yes, it would be easier to move around, but at the same time I would be harming his internal organs and his bones […] All the children you have seen with those carts, their [health] problems are different, and they use the cart just for a couple of hours. However, your idea is for the cart to substitute his walker, to spare him from the pain and so on, but that would make him more harm than good […] When we prescribe a piece of equipment we have to make sure that it is not going to worsen the patient’s condition. It is not only about which equipment provides [the patient] the most comfort and mobility and that’s it; no, it is much more complicated than that […] It is about finding a piece of equipment that, as I said, will not worsen the child’s condition. Believe me, if he could use a cart without it causing him further problems, I would have ordered one for him ages ago. But there is a reason why he was prescribed that kind of walker. What we want is to make him walk, to make him move all of his body as much as possible, and that includes his legs […] and [in order] to achieve that, we are trying to facilitate his gait with the walker he has plus whatever his doctor decides after this analysis,
be it an orthotics, or surgery, or whatever the assessment indicates it is best for him. So, next time you see his orthopaedist, just tell her that I did not want to order the cart, ok?

Mother: Ok [...] –she nods–.

Throughout the patient’s treatment program multiple rehabilitation collectifs will get enacted. Sometimes, they will coexist with one another, more or less as parallel entities; some other times, they will come into being within other collectifs. In order to participate of their assemblage, the ethnographer should be able to keep continuously “changing of scale”, to put it in Latour’s terms (Latour, 1983; 1987; 1991; 2005), this is, to move from the smaller to the bigger picture and back or, as Singleton and Michael (1993) would say, to become skilled in the business of zooming in and out.

At the centre’s Gait and Movement Lab, carrying out a gait assessment implies the configuration of a particular “gait collectif” constituted by specific agents and material relations that will, in turn, allow for the assessment to be performed. This gait collectif is only one of the multiple rehabilitation collectifs that, day after day, get shaped at the centre. Although, it comes into being inside the GMLab, it coexists in a parallel way with other collectifs outside of it, such as those enacted in the orthotics & prosthetics lab or in the occupational therapy area. Simultaneously to this parallel coexistence, many other heterogeneous collectifs will emerge precisely from within the gait collectif, allowing for –and sometimes resisting– its enactment.

Configuring a gait collectif involves, first of all, what in Foucaultian terms could be referred to as the setting of the required “conditions of possibility” for its emergence (Foucault, 1991: 2005). Looking at the activities that precede any rehabilitation process involving prostheses can give us new insights about the process itself as well as about the materials and practices that enable and sustain it. Authors like Callon and Rabeharisoa have made a similar suggestion for the case of the study of surgery and its management (Callon and Rabeharisoa, 1999). They argue that, in addition to the surgical procedure itself, a sociological analysis of surgery would be enriched by taking into account what happens before and after the actual operation. Their work on surgery comes as a response to
Hirschauer’s, in which he explores the socio-material interactions established between the body of the patient and what he calls “the surgical body”. In his paper, Hirschauer’s ethnographic observations are circumscribed to the operating room and the surgical procedure itself, ignoring any of the activities related to surgery that take place outside of them (Hirschauer, 1991).

For the case of this chapter, it is worth to explore what happens before a gait assessment takes place since, as I show below, those activities will give shape and sustain the gait assessment and its possible outcomes. At the GMLab, the setting of conditions for a gait evaluation is a diverse and complex process which involves a wide variety of agents, materials and practices, including those related to some of the most mundane activities, such as that of paperwork.

The stories above presented tell about three different patients in three different situations. What these stories have in common –apart that they all unfold at the GMLab– is that all of them have to do, in some way or another, with paperwork, be it in the form of a gait assessment request form, a prescription, a medical records electronic file, or even a simple sheet listing the patients of the day.

In order for a patient to have a gait assessment done, this has to be requested by his or her medical companion, who will send an assessment request form to the GMLab. In the form, the medical companion will indicate the parameters of the gait pattern characterisation that require a more detailed exploration and whether an electromyographic analysis should be also included in the assessment. Such characterisations include spatiotemporal, kinetic and kinematic parameters. Spatiotemporal parameters include: cadence, stance, single support normalised stride length and normalised walking speed. Kinetic parameters include: peak of plantarflexion moment and peak of ankle generated power. Finally, kinematic parameters include: range of motion (ROM) at hip, ROM at knee, ROM at ankle, peak of ankle plantarflexion, peak of ankle dorsiflexion in swing and foot progression (Davis et al., 1991; Vismara et al., 2007). If required, the electromyographic analysis evaluates neuromuscular activation and muscle action potentials within any activity.

When the request is made, a member of the administrative staff will schedule an appointment on one of the gait-assessment days –either on a Tuesday or a Wednesday–. Three other assessments will be
scheduled for the same day, starting at seven or eight in the morning and finishing at noon. If everything goes according to plan, each of them will last for up to an hour. The scheduled appointments and assessment request forms are stored in the centre’s computerised administration system, which also stores every single patient’s medical records and rehabilitation history at the centre. All of this data can be accessed at any time by every one of the specialists involved in the patient’s rehabilitation program.

At the GMLab, the first contact between patients and rehabilitation specialists is made through the assessment request form. On the one hand, this form includes general information about the patient’s identity (name, age, gender, medical companion’s name, diagnosis, etc.). On the other, it describes the reasons why such an assessment has been requested, the gait parameters that require a detailed analysis, the course of action that is being considered, and any health or other issues to be taken into account when suggesting a treatment, among other aspects. In this way, this simple format reveals crucial information not only about the patient, but also about the treatment program itself and the possible rehabilitation trajectory(ies) that might be followed. In other words, the request form tells about the sort of heterogeneous assemblage specialists at the GMLab will be dealing with during the assessment, the possible futures that might be created for the patient, as well as the kind of rehabilitation collectif that might be expected to be articulated for the next phase of the process.

The assessment request from Story 1 told Dr. Campos, for example, that the patient was a toddler, that he had been diagnosed with PDR and that this was the first time he would undergo a gait assessment. It also told him that the child’s medical team was considering orthotics as the next step in his rehabilitation trajectory and that, given the case, the GMLab would have to recommend a certain kind of orthotic

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5 For some patients who suffer from osteoporosis, for example, it is not recommended to prescribe certain kinds of orthotics and mobility aids, since walking itself could cause their porous bones to break. For some other patients, certain treatments and what they involve might result too expensive to be considered as an option. Therefore, the medical companion must clearly state all this in the form for the gait specialists to take this into account and consider alternative possibilities.
device. In addition, through the request form, Dr. Campos learned that they would need to use the $\text{TET-Unit}$ during the assessment—for an EMG—, so he could have it ready before the child’s arrival. Finally, he was also reminded about the probabilities of technical difficulties while conducting the analysis and processing the data, as well as about the precautions he would have to take, all this given the patient’s physical characteristics. In summary, the request form allowed Dr. Campos to make sense of the patient and the sort of socio-material interaction they would be dealing with, to plan the gait assessment process in advance and to make all the necessary arrangements for it to develop as smoothly as possible.

Although, at the centre, assessment request forms are perceived more as a part of the burden of paperwork-related activities that clinicians cannot escape, and less as an element of their “real” clinical practice, these and other apparently “non-medical” paperwork materials and activities are actually essential to the rehabilitation process, since they act as linkages between departments, clinicians, relatives, and particular sets of practices, and contribute to the configuration of the gait-collectif, as well as to the enactment of the patient as an object of clinical intervention, particularly situated and full of specificities.

Request forms are only one of the many vital agents that mediate the first contact between the patient and the GMLab. As simple as a list of patients’ names and areas might be, this is actually a key element for making possible such first contact, as Story 2 clearly shows: Through the request form they were sent, Dr. Valle and Dr. Campos were able to know who they were expecting. They learnt that the patient was a nine year-old girl, that she had $\text{CP}$ and that she would be wearing orthoses. They were able to prepare, in advance, for the reception of a very specific material-semiotic assemblage. However, the lack of an accurate list of patients and their scheduled appointments prevented the link between her and them from being established.

Assessment request forms are vital for the GMLab’s clinical activities. No gait analysis can be performed without a request form backing it up, no patient can undergo any sort of examination without the written indications for it. Request forms tell clinicians what it is to be observed during the evaluation, what to look for, and how to do it—this, in terms of technological means, clinical procedures, etc.—But request forms do not stand by themselves; rather, they are always
sustained by the patient’s clinical history. Before every assessment, Dr. Valle and Dr. Campos will always have a look at the patient’s medical records. This allows them, among other things, to put in context what they are being asked in the request form; this is, to relate the examinations requested to the individual’s rehabilitation process as a whole. With the joint information from those two sources –request form and medical records–, they are able to tune themselves in the same “rehabilitation frequency” as the medical companion and the rest of the medical team, to make better-founded suggestions for intervention and, sometimes, even to pick up certain inconsistencies, as in the case of the patient from Story 3.

At the centre, it is part of the administrative procedures that, when a clinician orders any kind of study or analysis, she/he must always write it down in a request form, she/he cannot just tell a colleague what they want, not to mention asking the patient herself to tell the clinicians what she needs! Following this principle of action, GMLab’s specialists do not perform any kind of examination unless it has been clearly stated by the patient’s doctor in the request form. Exceptions are made when gait specialists consider that they should analyse a certain parameter in more detail or carry out a test that was not previously indicated in the form but that would add important information for the child’s treatment and clinical management. So, when the child’s mother from Story 3 asked Dr. Campos, on behalf of the child’s orthopaedist, to order a hand-propelled cart for him, the situation got a bit suspicious, since there was no mention of any cart in the format at all. Our doubts were confirmed by the patient’s medical records showing a history of multiple conditions for which a cart like those would result counter-indicated. Knowing this and considering the mother’s behaviour, it became evident who was really the one behind the idea of ordering a hand-propelled cart for the child.

In addition to the results of the tests that will be performed to the patient throughout the whole rehabilitation process, medical records will be a crucial defining agent of the type –and structure– of rehabilitation trajectory to which the patient will be subjected. Medical records constitute a very specific historical, social and material representation of the patient, of her body and of the sort of diseases and disorders that have interfered with its normal functioning throughout the patient’s life, as it can be observed for the case of the patients
from the three stories presented above. The patient from *Story 1* had been diagnosed with psychomotor development retardation, condition that had to be taken into account while deciding on the sort of orthotic device that would be prescribed to the child. The girl from *Story 2* had a diagnosis of Cerebral Palsy; even though it was a mild cp, it still affected her gait; specialists, therefore, would have to consider such a condition, as well as the measurable results of the use of *kafos* “knee-ankle-foot orthotics”, when determining whether the girl should keep using them or they should be changed for another type of orthotics. Finally, a history of multiple diseases prevented the child from *Story 4* to use a hand propelled cart, even though it could spare him from the terrible pain of walking and greatly improve his mobility at home and elsewhere.

The three cases presented above tell us something about the role that assessment request forms, together with patients’ lists and medical records, play in a gait assessment and, more broadly speaking, in an individual’s rehabilitation treatment program. These materials and the initial preparations associated to them are crucial for the assemblage of a particular gait collectif that will, in turn, allow for the gait assessment to be performed. The information provided by them allows the GMLab’s specialists to make sense, in advance, of the sort of “gait situation” they will be dealing with during the assessment – the individual’s characteristics, type of diagnosis, technical concerns, possible clinical management, etcetera– and, at the same time, it allows them to visualise the kind of gait collectif they expect –and are expected– to enact during the assessment, setting the parameters for it.

At this point, it is worth to mention briefly a final element that plays a crucial role when conducting a gait assessment: this is the computerised management system. This system acts as an agent of control, surveillance and coordination of the materials, actors and activities involved in a patient’s treatment. It allows the rehabilitation team to coordinate their actions and develop a coherent program of intervention. It keeps track of each and every one of the different interventions performed on the patient’s body, allowing specialists access to a detailed step-by-step panorama of her rehabilitation trajectory. It also gathers the subject’s complete rehabilitation history in one single place, providing clinicians a full picture of the
process and of the outcome of each “set of activities” developed within it. Furthermore, the computerised management system is an essential element for the configuration of the different collectifs that will be shaped throughout the whole rehabilitation process.

I want to suggest here that the four elements above mentioned – this is, assessment request forms, patients’ lists, medical records and computerised management system – can be seen as different forms of “infrastructure” and, at the same time, they also act as “boundary objects”. Here, I am drawing, of course, on Star’s work (tar and Griesemer, 1989; Star and Ruhleder, 1996; Star, 2002).

Star defines infrastructure as something that other things run on, things that are substrate to event and movements. “Good infrastructure is by definition invisible, part of the background for other kinds of work” (Star, 2002: 116). This scholar has highlighted the importance of attending to infrastructure while conducting fieldwork, as she puts it:

Study a city and neglect its sewers and power supplies (as many have), and you miss essential aspects of distributional justice and planning power (but see Latour and Hermant, 1998). Study an information system and neglect its standards, wires and settings, and you miss equally essential aspects of aesthetics, justice, and change. Your ethnography will be incomplete (Star, 2002:117).

According to Star, many studies focus on certain categories and processes while ignoring the infrastructural settings that support them (Star and Ruhleder, 1996; Bowker and Star, 1999). Some researchers, for instance, may find following the trail of paperwork activities and materials too boring or uninteresting. However, even if taken for granted or unnoticed most of the time, these infrastructural elements are actually the pillars that sustain the rehabilitation process, as I have shown above. Studying infrastructures is, then, a way to explore socio-technical systems in the making. Here, I am adding the “socio” prefix that Star tends to take for granted! In my view, as in that of several STS writers, the technical and the social are never separate issues; instead, they are intertwined with, and sustain, one another.

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In the case of my object of empirical study, medical records and computerised management system actively participate in the rehabilitation process as infrastructures of representation, technologies in and through which the patient gets translated and re-presented in a specific, material-semiotic, «noise-free» version, purified of any irrelevant information. They get mobilised as materials for the production, inscription and preservation of knowledge about the patient.

In addition to assessment request forms and patients’ lists, medical records and computerised management system work too as infrastructural communication tools and as linking devices. These diverse technologies help the team of rehabilitation specialists to establish a single infrastructural regime –as Star would say– around rehabilitation and, specifically, around a particular diseased body of clinical concern. A regime common to all and that, therefore, can be used to communicate among each other and to make themselves and their practices understood by the rest of the members of the collectif.

Within the patient’s rehabilitation process, paperwork materials work as boundary objects, this is, as infrastructural arrangements that dwell in more than one community of practice [they provide] a lingua franca for exchanges (Star, 2002: 118; see also Star and Griesemer, 1989; Star, 1989). Boundary objects allow different groups to collaborate on a common task, they make possible coordination without the condition of consensus (Harvey and Chrisman, 1998). Following Star and Ruhleder’s claim that infrastructure is a fundamentally relational concept, becoming real infrastructure in relation to organized practices (Star and Ruhleder, 1996; Jewett and Kling, 1991), I want to argue that not only these boundary objects link the technical apparatus of, in this case, a rehabilitation system; but also, they connect a heterogeneous array of materials that include

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7 Beginning the list with the ANT triad (Latour-Callon-Law) and following with the countless works that have derived from that approach, including those originated from the After ANT discussions.

8 Susan Leigh Star developed the notion together with James Griesemer while conducting a study of the development of the Museum of Vertebrate Zoology at UC, Berkeley.

9 According to these authors, [a]analytically, infrastructure appears only as a relational property, not as a thing stripped of use (Star and Ruhleder, 1996: 113).
patients, medical histories, rehabilitation trajectories, prosthetic
devices, medical experts, clinical treatments, possible futures, etc.
Throughout the rehabilitation process, those infrastructural
arrangements will give a more or less standard meaning and certain
coherence and logic to the patient, her body and its diseases, on the one
side; and, to the sort of collective interventions that will be performed
upon them, on the other. The way in which such objects are constructed
and handled will indeed have an effect in the patient’s rehabilitation.
So, computerised system, request forms, patients’ lists and medical
records frame and coordinate the interactions between patients, gait
specialists, medical companion and the rest of the rehabilitation team.
Together, these agents contribute to enact a particular “gait-patient”, this
is, a particular object of medical examination within a specific clinical
context, a particular body with specific anatomical and physiological
characteristics, and a particular person living in specific socio-material
conditions. Finally, it is possible to affirm that such actants not only
outline the setting of the gait assessment, but also its possible outcomes
—which get materialised in a specific clinical management that might
involve pharmacological, surgical or/and orthopaedic treatments—and,
very importantly, they actively participate in tracing the patient’s
trajectory within and beyond his/her rehabilitation program.
In this text, I have attempted to show the importance of looking
at mundane artefacts such as filling forms when studying medical
practices, in this case, rehabilitation processes. Filling forms, I argued,
can be understood as information infrastructures, which contribute
to the configuration of particular kinds of patients and diseases and,
in consequence, help shape particular rehabilitation strategies and
outcomes.

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