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ARTICLE/ARTÍCULO

Those Things That Care for Us: Objects, Assemblages and Everyday Arrangements that Sustain Life

Esas cosas que nos cuidan. Objetos, entramados y arreglos cotidianos que mantienen la vida

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ABSTRACT

The presence of technologies in care invites a rethinking of the relationships established between caregivers and people who receive care. Through our project *Technological Arrangements and Assemblages in Family Networks for Home Care* (PRY115/22), funded by the Andalusian Studies Centre Foundation, we analyse the role that technologies play in care, particularly within the domestic sphere, and their integration into the human-technological nexus. Semi-structured interviews were conducted with individuals with intensive daily care needs and their family members in order to investigate access to and everyday use of these tools from a qualitative perspective. The results reveal habitual use of a range of devices, marked by emotional ambivalences and the formation of singular bonds. The findings suggest that care is articulated through objects and technologies that facilitate ageing in place, configuring 'more-than-human' care networks.

KEYWORDS: Gender; care; technologies; home.

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RESUMEN

La presencia de las tecnologías en los cuidados invita a repensar las relaciones que se establecen entre las personas cuidadoras y quienes reciben cuidados. A través de nuestro proyecto Arreglos y ensamblajes de tecnologías en las redes familiares para el cuidado de las personas en sus hogares (PRY115/22), financiado por la Fundación Centro de Estudios Andaluces, analizamos el papel que las tecnologías desempeñan en los cuidados, particularmente en el ámbito doméstico, y su inserción en los entramados sociotécnicos. Para indagar en el acceso y uso cotidiano de estas herramientas, desde un abordaje cualitativo, se realizaron entrevistas semiestructuradas a personas con necesidades intensas de cuidados en su día a día y a sus familiares. Los resultados revelan un uso habitual de diversos dispositivos, atravesado por ambigüedades emocionales y por la construcción de vínculos singulares. Se concluye que los cuidados se articulan mediante objetos y tecnologías que facilitan la permanencia de las personas en el hogar, configurando entramados de cuidados «más que humanos».

PALABRAS CLAVE: género; cuidados; tecnologías; hogares.

1. Those things that care for us

As technologies become increasingly central to care, a reconceptualisation of the links between the human and the non-human is called for, along with a redefinition of the very concept of care in its interrelation with technological development. This approach gives rise to a number of questions: Can technology empower or foster the agency of those who need care in their daily lives? In what ways do technologies contribute to attentiveness or, on the contrary, lead to neglect? Is it meaningful to speak of 'what takes care of us' or to affirm that objects themselves possess the capacity to care? To provide some answers to these questions, this article presents the results of the research project *Technological Arrangements and Assemblages in Family Networks for Home Care* (PRY115/22), funded by the Andalusian Studies Centre Foundation.

The field of study of technologies in care is rapidly expanding. The academic literature has charted an extensive course on this topic, ranging from first-generation adaptations in machines and devices to more sophisticated inquiries into robotics (Vallès-Peris *et al.*, 2026), the ethical challenges of artificial intelligence (AI) and the impact of nanotechnologies on bodies (Murphy *et al.*, 2021). A substantial body of work addresses this issue from a range of perspectives. Without intending to be exhaustive, we focus here on four major analytical strands selected for their contemporary relevance and explanatory power.

The first strand focuses on technologies for health and well-being, examining the direct interaction between people and devices from a predominantly biomedical

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perspective. Within this framework, AI is applied to health, learning and communication. This includes telemedicine, encompassing applications for fall prevention, home remote monitoring systems and medication management tools. Assistance robots also play an important role in care processes (Nagusi Intelligence Center, 2023).

The second strand concerns the development of so-called smart homes and the incorporation of technological resources into domestic environments. Feminist perspectives have problematised this proposal, examining how the sexual division of labour within the home is transformed – yet ultimately maintained – as ways of living change, and questioning whether smart homes can genuinely be said to fulfil a caring role (Gruhlich *et al.*, 2025). This strand thus explores the relationship between care and technology through the lens of social gender structures.

The third strand examines the potential of technology in care, with particular emphasis on the training and education of caregivers in order to counter misinformation and alleviate the concerns that technological developments may raise (Torres-Gelo, 2025). It seeks to cultivate more positive dispositions towards technological advances, understanding them as tools that facilitate care.

The fourth strand approaches technologies from the intersection of science and technology studies (STS) and the ethics of care. From this perspective, technologies are understood to reconfigure the relationships between those who receive care and those who provide it (Moyà-Köhler and Domènech, 2021; Sánchez Criado and Domènech, 2015; Vallès-Peris and Domènech). One of the central concerns of this strand is the notion of networks of interdependence, in which the human is intertwined with objects, environments and technical devices. Drawing on the ethics of care, authors such as Paperman (2019) and Tronto (2024) have emphasised an embodied and relational subjectivity sustained by networks of interdependence. Although this approach has been somewhat resistant to technification, viewing it as a risk to 'good care' (Nurock, 2020, 2024), authors such as Winance (2024) bridge the gap between STS and the ethics of care. They suggest that technological objects and arrangements can be facilitators of agency, allowing the body not only to be 'acted upon' by others but also to act through technological mediations.

These contributions reflect the multiplicity of approaches from which the relationship between technologies and care can be analysed. This last strand provides the analytical foundation for our research, since sociotechnical frameworks and the ethics they materialise are best placed to reveal how care is being reconfigured. We argue that technologies and everyday objects are not mere instruments but constituents of more-than-human assemblages that redefine the very meaning of care. The objective of this article is to explore and describe the technologies present in home care practices, drawing on the accounts of those directly involved – people who require care in their daily lives and their family members.

2. Defining technocare

Vulnerability is inherent to the human condition (Paperman, 2005), which makes caregiving a universal need. Additionally, the integration of technologies into care practices directly affects social relationships and ways of perceiving and experiencing reality. If vulnerability is the norm rather than the exception, technological devices are not mere technical aids but fundamental means through which care is made possible.

Maintaining and repairing bodies, as well as sustaining the emotional and subjective dimensions of life, depends on interactions involving both humans and non-humans. In this framework, technologies are active participants in care (Mol, Moser and Pols, 2010; Winance, 2024). Telecare illustrates this well, as do various devices that acquired greater visibility during the SARS-CoV-2 pandemic, such as respirators used in intensive care units. While technology cannot replace the care provided between human beings, many devices have contributed to saving, maintaining and repairing lives. Some take the form of techno-assistive devices that become incorporated into bodies, binding with and integrating into them – as is the case with wheelchairs, prostheses and hearing aids (García Selgas and Martín Palomo, 2021). The assemblage of care technologies involves continuous readjustments and rebalancing that facilitate and improve daily life, or simply render it bearable, allowing people to maintain their autonomy even in situations of great fragility (Callén et al., 2009). The degree to which technologies and care align depends largely on the uses attributed to them in specific contexts (Mol, 2008).

The specialist literature on technologies and care reveals a vast field, ranging from studies of first-generation applications – such as the adjustment of wheelchairs, respirators and remote care devices (Mol, Moser and Pols, 2010) – to examinations of the relationship between care and robotics (Vallès-Peris *et al.*, 2026), artificial intelligence (Murphy *et al.*, 2021; De Togni *et al.*, 2024), and nanotechnologies and their impact on bodies (Maestrutti, 2011), as well as the ethical challenges these developments entail (Nurock, 2020, 2024). In short, this is a broad field that demonstrates how technologies already participate in care in multiple ways (Buse, Martin and Nettleton, 2018; Browsel and Bradley, 2003). Such participation is not merely instrumental – it redefines the lives of those who need care and all those involved in their care network.

Technologies are part of what it means to be human and have been present since the earliest hominids first created basic tools. Yet, like caregiving itself, they tend to become taken for granted once incorporated into everyday life. As Núria Vallès-Peris (2021) underlines, technologies are not neutral but active mediators in moral, social and political action – hence the importance of examining both concrete care practices and the ethics embedded in artefacts.

https://doi.org/10.54790/rccs.149

3. Methodology

The study of technologies involved in care presents both theoretical and methodological challenges, given that these practices are deeply embedded in everyday life and, as such, rarely made explicit in social discourse. To meet the objectives of this article – to explore and describe the technologies present in home care practices – a qualitative methodological design was adopted, with semi-structured interviews as the main technique for generating data. This technique allows us to examine how participants interpret care as mediated by technological objects and devices, drawing on the accounts of both those who provide care and those who receive care in their everyday life.

The study population comprised people who require care and their family caregivers living with them in Andalusia. Participants were recruited through convenience and snowball sampling, via associations, sector companies and the personal networks of the research team. To minimise the biases inherent in these methods, the channels of contact were diversified, and the anonymity and confidentiality of all information was guaranteed throughout. The inclusion criteria were as follows: adults residing in their own homes or in the homes of relatives in Andalusia, who need and receive care in their daily life or who provide it to family members, and who are able to communicate orally with or without support. The exclusion criteria were: non-residents of Andalusia, people living in residential care facilities, minors and those unable to communicate orally.

Fieldwork took place in 2023 and 2024, in a post-pandemic context marked by the persistence of distress and fear, as well as a heightened awareness of vulnerability. This context shaped the ways in which technologies were incorporated into care and the meanings they acquired in everyday life. A total of 22 interviews were conducted: six with people with daily care needs and 16 with family caregivers of people in situations of dependency. Twenty participants were women and two were men, ranging in age from 31 to 83 years. Most caregivers care for their parents – mothers more frequently than fathers – while the remainder care for their spouses. Contacting older people proved particularly difficult due to the post-pandemic climate and the reluctance of family members to allow unknown individuals into their homes, which resulted in a smaller final sample of people receiving care. The criterion of thematic saturation was nonetheless maintained to determine the closure of fieldwork.

Interviews were conducted using an open thematic script covering dimensions such as family history, care activities both provided and received, reflections on care and current needs, and the specific use of objects, machines and technologies. This script was conceived as a flexible tool, open to unforeseen elements that might arise in the course of the interviews.

Analysis was carried out manually, combining semantic analysis – identifying attractors and semantic fields, categories, oppositions and rhetorical figures – with structural analysis aimed at understanding the social positions from which

discursive differences emerge. Interview transcripts were reviewed and an analysis plan was designed around the central concepts identified in relation to technologies, assemblages and objects present in care. A cross-analysis was subsequently carried out, relating discourses according to the topics addressed and the contexts in which they emerged. We sought to identify not only the technologies explicitly mentioned but also those objects that, through their routine integration, had become 'invisible' in participants' accounts. Discourses were interpreted in relation to the concrete conditions of life from which participants construct their perceptions of care and technology, considering the subject of enunciation in relation to the social position they occupy (Alonso, 1998).

4. There are things that take care of us, but it's hard to talk about them

The findings of the fieldwork reveal that the relationship between care and technology does not emerge spontaneously in participants' narrative discourse. The topic had to be explicitly introduced before participants began to reflect on these aspects of their routines. This suggests that technocare is either still an incipient reality in the social imagination or, more likely, so deeply embedded in everyday life that it is not perceived as a distinct phenomenon. For it to appear in discourse, it had to be 'provoked' – consistent with the idea that technology becomes transparent when it works as intended. The results presented here focus on the technological devices that were most significant for our participants, which means that more familiar technologies feature more prominently than more innovative ones.

4.1. The banal, the small, the everyday

4.1.1. Objects for medical care at home

The interviews reveal the presence of various objects related to self-care and home medical monitoring. Devices such as glucose meters, insulin pumps, pulse oximeters and blood pressure monitors actively participate in care, fostering a degree of autonomy. While some devices can be managed independently, others – such as syringes – require the involvement of another person, activating social interactions and bodily contact.

> I check my sugar, because I have diabetes. I prick myself and check my sugar. And then when they come, they take my blood pressure. [I8, woman receiving care, 43 years old].

In this case, the glucometer acts as a mediator of personal agency, while the blood pressure monitor articulates the bond with caregivers.

The incorporation of medical technical aids in the home allows family members to assume clinical competencies through their use:

> When he catches a cold, the oxygen in his head drops a little, and I have the device. I put it on him one day and he got better. [...] I've got one of those blood pressure monitors, and I also bought one of those finger things to keep track of his blood oxygen. [I3, female, cares for father, 57 years old].

Here, the pulse oximeter – 'the finger thing' – not only measures a physiological parameter but provides the caregiver with a sense of security that reduces uncertainty and fear.

The relationship with the object can also be a means of asserting identity and preserving privacy, even in situations of high dependency:

> She manages well [*with the probe*]. She doesn't want anyone to touch her, that says it all. She goes, empties her bag, puts it on and takes it off herself. She doesn't want anyone to touch her. [I18, cares for mother, 55 years old].

In appropriating the probe, the person receiving care marks a bodily boundary, thereby preserving her privacy. These findings show that medical technical objects in the home give rise to tensions between autonomy and dependence on others, shaping specific forms of articulation between bodies, technologies and care.

4.1.2. Mobility inside and outside the home

Walking sticks, walkers and wheelchairs emerge in participants' accounts as essential aids for mobility, though each carries a different symbolic weight. The walking stick is perceived as a basic and traditional aid, strongly rooted in the cultural imaginary of old age. The walker, by contrast, is valued for the safer movement it affords both inside and outside the home. In everyday use, it transcends its original function as a support, becoming a transport platform and acquiring new meaning: it serves to carry other objects.

> With my walker I go from here to there [*circles the room with her finger*]. And I do four laps. Just great, I can go back and forth. [I5, woman receiving care, 76 years old].

> She needs the walker. What she does is swap it for the shopping trolley, loading it up with goodness knows how many litres of milk. [I15, female, cares for mother, 57 years old].

The walker thus not only aids walking but enables the person to do their shopping. It ceases to be a technical aid and merges with an everyday object – the shopping trolley – becoming a facilitator of agency.

In contrast, the wheelchair is frequently associated with a sense of irreversibility and loss of autonomy. It represents an advanced stage of support that, unlike the walking stick or walker, is often perceived as a point of no return. This leads caregivers and their families to postpone its incorporation into daily life for as long as possible.

> I try to use it as little as possible. I try. When you can't manage, you can't manage. If I put him in the wheelchair for three days, on the fourth he doesn't know how to walk. I've seen it with my own two eyes. I started using it recently, when he wasn't feeling himself. 'Do you like it?' 'Yes, I like it' [*recreating a conversation with her father*]. And then the next day he didn't want to go downstairs. He was waiting for the chair – he's not stupid. So, while he can, he walks; when he can't, he'll use the chair. [I3, female, cares for father, 57 years old].

This account illustrates how bodies and assistive technologies align and misalign. There is an active resistance to the wheelchair, driven by the fear that it will undermine the motor abilities of the person receiving care.

4.1.3. Personal hygiene and postural changes

For caregivers, certain devices are critical in situations of high dependency, particularly those designed for moving, washing and repositioning. Standing and mobilisation hoists emerge as key tools that reconfigure domestic space, enabling transfers – from bed to chair or vice versa – without compromising the physical integrity of the person receiving care or the health of the caregiver. In this sense, the hoist provides safety and reduces the risk of injury, and rather than replacing human contact, it facilitates interaction in a safe manner**.** A significant finding is the personification of the object. Giving it a name singles out this particular object – and no other – incorporating it into a shared framework of meaning that enables a common experience among those involved.

> I found this hoist by searching the internet. It's a standing hoist – you put a harness on it, grab the two handles and it lifts you upwards. [...] I need it – I couldn't manage without it. It's called Manolito. We've even given it a name in our house. We couldn't live without Manolito because I couldn't lift her – I don't have the strength. So I really need this kind of mechanical infrastructure. [I13, female, cares for mother, 31 years old].

However, accessing these resources is far from straightforward, revealing economic and bureaucratic barriers for those without public assistance or sufficient financial means:

> I cried a lot, because I came here asking for a hoist. This guy saw me – I can't remember his name now – and I was crying my eyes out. [I19, cares for mother, 57 years old].

The incorporation of these technical aids also requires a learning and adjustment process, which often requires the collaboration of others and involves considerable additional effort:

> If you pay attention it's easy enough. Of course, I can't manage on my own [...] The harness has a kind of handle on the back that you have to pull to get her into the chair, and someone else has to press the button at the same time. I can't do it alone. My daughter can do it alone, and so can the carer. [I16, female, cares for spouse, 81 years old].

The acts of 'pressing the button' and 'pulling the harness" reveal a form of care in which humans and machines must work together. This stands in stark contrast with memories of how things used to be done, when such movements had to be carried out manually, taking a heavy physical toll. Hoists allow the task of mobilisation to be carried out more carefully and with less physical strain.

> I used to do have to do that, so I remember it perfectly well. Oh, dear. I remember helping my mother – getting her up, putting her to bed, washing her. And then I'd have to look after my aunt for a month, as the person whose turn it was couldn't do it. [I17, female, cares for mother, 43 years old].

4.1.4. Rest and repair

Articulated beds and anti-bedsore mattresses are progressively incorporated into the home as care needs intensify. Entering everyday life as devices for repair and prevention, these technical aids bring hospital logic into the private space of the home, transforming the bedroom into a clinical support environment. However, this medicalisation of the home depends on the availability of economic resources, public assistance and the physical characteristics of the home itself, which must be adapted to accommodate such objects.

Technology offers increasingly specific and personalised solutions to improve quality of life, gradually becoming part of everyday care. As needs become more complex, and where resources allow, responses grow more sophisticated. One participant describes how her husband has an anti-bedsore mattress with a remote control, which allows it to be inflated and deflated as needed. This not only prevents pressure sores from forming but also helps improve blood circulation and muscle tone, therefore providing comprehensive care. Another describes how an articulated bed allows the body to be repositioned more gently, facilitating both rest and care tasks.

> Since she already had a fall when she was 40, we have her in an articulated bed with a motor, which makes it easier to adjust her position – even getting her up is easier. [I12, female, cares for spouse, 63 years old].

In situations of great vulnerability, these technical aids are seen as essential to sustaining life:

> We bought her a mattress so that she doesn't get bedsores... If it weren't for this device, she would surely be dead. [I14, male, cares for spouse, 50 years old].

4.1.5. Prostheses

Devices that complement or replace limbs or organs generate ambivalent relationships with their users. Hearing aids are a case in point: despite their capacity to improve hearing, they frequently meet with resistance owing to their high cost, erratic functioning and the symbolic associations that link their use with old age. Participants' accounts suggest that these devices frequently fall short of their advertised promise of natural hearing, introducing instead unwanted noises, buzzes and distortions that disrupt rather than facilitate communication. The device introduces a mediation that the person cannot always control, causing discomfort and frustration, and often requiring constant adjustment. Indispensable as they are for many people, hearing aids are thus perceived as artefacts whose imperfect functioning falls short of the needs that led to their use – giving rise, in turn, to an ambivalent relationship with technology.

> These things? They're a real pain, because when there are lots of people around, it picks up noise from all over the place and it gets overwhelming. [I2, male, cares for spouse, 87 years old].

> One works fine, but not the other [...] I can hear noise in my ears. [I7, woman receiving care, 82 years old].

As with the wheelchair, the adoption of hearing aids tends to be postponed for as long as possible, as it is experienced as an irreversible change. The process of adapting to these devices is consequently laden with emotions and reflections on identity, independence and ageing – mirroring, in many ways, how some people experience the transition to a wheelchair.

> She would need a hearing aid, because she is very hard of hearing. [...] She would also have to pay four or five thousand euros, which is a lot. And she's not exactly... So she says: 'Well, if I don't have the money, why struggle to find it when I'm managing as it is?' She doesn't wear one because, she says, that's for old ladies. [I10, female, cares for mother, 58 years old].

> He wears a device on his legs – a lift on one foot. [...] He had all the devices, the callipers and the... and the corset. To stand up, he'd grab the crutch and then he'd be able to walk. Without all of that, he can't, of course. [I12, female, cares for spouse, 63 years old].

> In this case, the combination of crutch, lift and callipers makes it possible for him to stand.

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What this brief analysis of prostheses reveals, then, is that the acceptance of technical aids hinges on a delicate balance between the functional benefits they provide and the economic and symbolic costs that the person is willing – or able – to bear.

4.2. The everyday: home automation, small-scale solutions and precarious arrangements

Infrastructures such as lifts, together with devices such as smoke detectors and stairlifts, function as caring technologies insofar as they enable people to maintain their daily lives and self-determination. The lift is a clear example of caring infrastructure: its absence exacerbates feelings of dependence and social exclusion, preventing activities as simple as going for a walk or doing the shopping. When lifts are present but inaccessible – for instance, too small to accommodate a wheelchair – technical adequacy becomes the linchpin of social integration and well-being:

> If only the lift were bigger so he could get in. [I12, female, cares for spouse, 63 years old].

> To go up and down, I've got one of those [*chair to go up and down stairs*]. And I also have a wheelchair, which I keep by there, because not long ago I went to a wedding and had to stay all day... [I2, male, cares for spouse, 87 years old].

Safety devices like smoke detectors clearly illustrate the notion of sociotechnical care networks. A detector alone does not provide security – it is merely an instrument of detection; its capacity to care lies in it being connected to an alert network comprising family members or emergency services. In this way, the detector becomes a component within a broader framework of care and protection, in which technology acts as a facilitator of rapid and effective response.

Yet this potential clashes with the digital divide, which emerges as a central obstacle to the use of certain devices. When devices require complex interaction – programming, remote controls, light codes – insufficient technological literacy translates into renunciation and exclusion. Unfamiliarity with devices can create significant barriers or lead people to abandon their use altogether, even when they could improve well-being:

> The air conditioning – I don't understand it. Sometimes I've changed it, or it stops, or the little red light won't come on. [I7, woman receiving care, 82 years old].

This account points to a technological disconnect between person and device. The reference to the 'little red light' conveys the incomprehensibility of an object that, rather than making life easier, generates stress and frustration. At this point, technology ceases to care and begins to neglect: the person prefers to do without

thermal comfort rather than struggle with the device. The digital divide is not, therefore, merely a skills deficit – it is a barrier that disables people's agency within their own homes, underscoring the need for technological designs that are adapted to the particular circumstances of those who use them.

4.3. The more sophisticated: robots

Humanoid robots generate ambivalent emotions in the home care environment, ranging from fascination with innovation to fear of displacing the human aspect. The findings suggest a hierarchy of acceptability within the care framework: while robots are welcomed for maintenance tasks, they are not accepted as substitutes for care, and their acceptability is closely tied to the presence or absence of emotion. As one participant – the primary caregiver for her father – explains, the introduction of a robot into the home is perceived as a sign that the family is absent, an indication of abandonment. While acknowledging that technology could play a role in specific situations, participants express a clear preference for human presence and companionship. The robot is associated with 'cold contact' – a lack of the warmth and closeness provided by family – generating both emotional and ethical distance towards its use.

> Lots of people are in the same situation as my father, alone and neglected when it comes to hygiene and things like that. I mean, if a robot can help with that, well, all the better... It's just that, in my case, I can't contemplate that, because we're here. [I11, female, cares for father, 58 years old].

> A robot in your home as if it were a person. Personally, from what I've seen, no, I don't like it. Because what happens to... what we've always had? [I1, woman receiving care, 43 years old].

> A robot is a robot. You can say to a robot: 'Now, make food...' But it can't think, and it doesn't have the same abilities a person has – like being able to give advice, for example. For me, a robot is a machine. What affection is a robot going to be able to show you? If you start to cry, it can't say: 'What's wrong?' It lacks the humanity that we humans have. [I9, female, cares for mother, 58 years old].

Yet perception shifts when the robot sheds its humanoid pretensions and becomes a functional object. In this guise, it is considered a suitable technological innovation for carrying out household tasks and even as a form of support or companionship:

> Chatting with my mother [*laughs*]. It would be great if it could keep her entertained, and even better if it could cook her meals well. [I10, female, cares for mother, 58 years old].

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In such cases, the robot is integrated into everyday life and personalised. The act of affectionately naming a cleaning robot 'the turkey' indicates that it has been incorporated into the care network in its own way. Here, technology frees up time and energy by taking on routine or repetitive tasks, without competing with the caregiver.

> We have a robot, one of the ones that cleans for you... I call it 'the turkey'. [I2, male, cares for spouse, 87 years old].

> It really came in handy because in the mornings I'd turn the machine on and leave it going round the house, and when I got back the house would be fluff-free. [I1, woman receiving care, 43 years old].

The insurmountable barrier to the acceptance of robotics lies in the sensory, the affective and the embodied. A clear boundary emerges – one that is difficult to cross – when it comes to activities requiring closeness, affection and direct physical contact. While robots are valued for domestic tasks such as cleaning or transporting objects, responses become markedly more reticent when it comes to intimate care activities such as personal hygiene, direct attention or emotional companionship. Repetitive tasks that require no personal interaction are those most favourably regarded as candidates for replacement; this changes, however, when touch or the senses – hearing, feeling – are involved, as these are perceived as exclusively human properties.

> More like mechanical things that help me [...] But a robot – what's it going to do for me? Bring me pills on a tray? I can't think of anything. I don't know. Also, this illness is... It really needs a lot of sensory input. So, maybe an older person who is otherwise well... Maybe they could have some kind of smart alarm system that you can talk to and that sort of thing. But this kind of condition needs human contact – because there's a kind of madness to it that can't be communicated. I just can't think of any electronic system that can recognise when someone falls or help out, you know? Because here you really need the human element. [I13, female, cares for mother, 31 years old].

> We have a different touch... Believe me, we're nothing like robots. And the touch I have – no robot could give her that, not a chance, nor the tone of my voice. [I14, male, cares for spouse, 50 years old].

Participants argue that human touch has a unique quality that no mechanical sensor can replicate.

4.4. The ambivalent: ICTs

Information and communication technologies (ICTs) simultaneously arouse interest, rejection, dependence and frustration. The continuous changes and advances in devices and applications force users to explore new resources, transforming what

they already know and altering established ways of relating. This is perhaps most clearly illustrated by older people's preference for the landline over more modern devices such as mobile phones or tablets, which tend to provoke fear and insecurity. This fear is linked to a feeling of displacement in the face of dizzying technological change, leaving people feeling out of place – even incompetent – as devices change and are updated at an ever faster pace.

> I have the landline and my daughter wanted to change it. And I said: 'No.' Because I don't understand it. Leave me my landline – I know how to make a call on it. [I5, woman receiving care, 76 years old].

The simplicity and familiarity of the landline offers a sense of control and security not found in mobile phones. When I7 reports that 'my mobile freezes on me', we witness a breakdown in the assemblage: the device ceases to facilitate communication and becomes instead a barrier, placing the person in a position of helplessness and displacement.

> I don't really understand mobiles. Because sometimes when I dial a number – to call my daughter or call Marta or something – it freezes on me. [I7, woman receiving care, 82 years old].

Many of the ambivalences surrounding the use of ICTs, and the absence of any mention of artificial intelligence (AI) in participants' accounts, are deeply connected to the digital divide – a gap that manifests itself both in access to devices and in the lack of skills to use them effectively. As a result, despite recognition of their potential benefits, everyday use is often hindered. Fear of making mistakes, lack of support and the feeling of it being 'too late' to learn all contribute to reluctance.

> The phone is a pain – it drives me mad. Half the time I don't know which button to press [...]. I bought a computer for the surgery back in eighty-two – I've been computerised from the start. [...]. You start using it, you press something, and before you know it everything goes pear-shaped. All these new technologies, it's unbelievable how much they keep changing. [I2, male, cares for spouse, 87 years old].

The reluctance to engage with a new device is an added barrier for many people, especially when it involves genuinely new technology. The feeling of not knowing where to start, or the struggle of having to learn new skills, can be a considerable obstacle. A key moment in overcoming this reluctance – and even the fear of not being able to get to grips with the device – comes when it begins to form part of daily routine. As interactions with the device are repeated, a degree of familiarity develops that reduces the effort involved and builds confidence. When this process is slow to occur, however, feelings of frustration or demotivation tend to arise, leading to the device being abandoned altogether – particularly when it involves constant updates, new features or settings.

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> I'm looking for a phone – I've seen one that lets you put a photo of the person or record number 1, Lola, number 2, such and such. When she wants to call us, she keeps getting the numbers wrong on the phone. Because she can't see them – she has one of those phones with big numbers, but she can't see them any more. She memorises them, but sometimes she gets it wrong. [I15, female, cares for mother, 57 years old].

Intergenerational collaboration emerges as a key source of support in first encounters with new devices, reflecting not only the adaptability of the family institution but also the continuity of affective ties, now mediated by screens and applications.

> TikTok is plenty for me. When I want to find something out, I check the news, I look it up online. And I have my son, who's a psychologist, so I ask him too. [I3, female, cares for father, 57 years old].

Younger family members play a crucial role in facilitating older generations' adaptation to new technologies, acting as digital mediators and caregivers in their own right. They encourage older people to use social media and video-calling platforms to maintain ties with family and friends. The support they provide not only aids learning but also helps to reduce the anxiety that technology can provoke.

> Important things like wishing people happy birthday, happy Christmas, making calls... I do all that too. I also have groups on my phone now, and I had no idea about that. Me. And they said: 'Mum, you need to have a phone and learn how to use it.' And I've started getting the hang of it. I even know how to send money by Bizum and make bank transfers now [*laughs*]. I'm learning little by little. [I4, female, cares for spouse, 79 years old].

Younger participants are more open to incorporating new devices into their lives and routines. Older participants describe having been obliged to learn to use many new devices – an experience that provokes some fear as new technologies come to occupy an ever greater place in their lives, though they recognise that they can adapt and that these tools are very useful, including for supporting the care of others or for self-care.

> We've all had to learn to use it. Because mobile phones didn't exist before [...]. I'm good with technology – whether connecting remote controls, whatever, I manage just fine. I have no problems with new technologies. It's true that lately we've all been inundated with new technologies. [I1, woman receiving care, 43 years old].

> I use Alexa to set me a timer for my injection. 'Alexa...' Because I have to... I have to inject myself, take it out, and that's half an hour. So I get Alexa to set a timer for me and she lets me know when the half hour is up – you don't have to keep an eye on the clock. [I8, woman receiving care, 43 years old].

Some devices can also play an important role in combating boredom, setting reminders or providing stimulation. Many participants, however, encounter difficulties in their use and struggle to pronounce device names correctly. Added to this, some devices carry biases in their design – Alexa, for instance, does not clearly understand the Andalusian accent – raising the question of who, precisely, these technologies are designed for.

A new device can also activate relationships with others:

> I go to my neighbour's: 'Fix this for me, because my mobile has stopped working.' [I7, woman receiving care, 82 years old].

In sum, objects reveal structural inequalities. Vision problems, or the difficulty that devices have in adapting to individual singularities and linguistic nuances, show that many technologies have been designed for a standard consumer and are poorly adapted to functional and social diversity.

4.5. The most widely used: telecare

Telecare is perhaps the most widespread and valued technology in home care networks. Combining various devices, it creates the sense that those who have it installed in their homes are under permanent care. All participants regard it as an essential resource; its value lies not so much in its technical functionality as in its capacity to generate a feeling of security. It is thus associated with companionship, autonomy and the possibility of continuing to live in one's own environment. While some concern about the loss of privacy can be detected, experiences are generally positive among those interviewed; the least positive relate to the limited resources available within the health and care system to respond to crisis situations.

> I fell and couldn't get up. I pressed it and they called the fire brigade. They had to break the glass in the door to get in and help me up off the floor [...]. Since then, I've always worn it around my neck. [I5, woman receiving care, 76 years old].

The pendant alarm with 'the red button' ceases to be a mere object, becoming instead a kind of bodily extension – a life insurance policy. Telecare thus acts as the hub that mobilises an emergency network when needed, bringing together firefighters, medical staff and family members.

> The red button, yes. Because I'm alone at night – who can I turn to? I'm not going to start calling my daughters or a neighbour, asking them to come. It's so easy with the red button – they answer you straight away. Yes, it's great. [I4, female, cares for spouse, 79 years old].

Telecare inspires a deep trust – it functions like a silent sentinel. The least positive experiences stem from shortcomings in the institutional framework rather than from failure of the device itself. Telecare thus represents sociotechnical interdependence: a small plastic button that symbolically and materially sustains the possibility of continuing to inhabit the world in a connected way, with a certain degree of independence. Its effectiveness, however, depends on the robustness of the system behind it.

> Twice when things got worse, we pressed the button and the doctor came quickly. [I16, female, cares for spouse, 81 years old].

Devices such as telecare and geolocation systems illustrate the tensions between security, privacy and autonomy. They enable people to remain at home and can locate those with cognitive impairment, even when functional limitations would otherwise make this unfeasible.

4.6. Technology and care assemblages

The analysis of participants' accounts reveals that technology acts as a support that makes remaining at home a viable option. Technology thus bridges the gap between physical limitation and the ability to continue living at home, extending what people are capable of through objects. Technologies are integrated into relational frameworks in which affection, responsibility and presence remain central.

The concern about how these networks are configured is present among our participants, and there is clear consensus: technologies can support care, but they cannot replace people in taking responsibility for it or in maintaining emotional bonds. It is assumed that technologies will be increasingly present in homes, even if the long-term sustainability of care remains uncertain.

> Technology is there to be used and to help us in our day-to-day lives. [I10, female, cares for mother, 58 years old].

> Believe me: technology helps, but it's people that save lives. There's no doubt about it... [I14, male, cares for mother, 50 years old].

As long as family affection is present, any object or device that makes daily life easier is welcome – the easier it is to use and maintain, the more appreciated it is.

> I think all this external help – whether mechanical or device-based – is just as important as the emotional side. And the emotional side has to come from family, from your children in this case. [I15, female, cares for mother, 57 years old].

5. Conclusions

Approaching care through the lens of the interdependence that characterises the human condition brings into view challenges of a social, political, epistemological and ontological nature. Within this framework, although technologies did not emerge spontaneously in participants' accounts, once the topic was introduced, it became clear that they are an active and inseparable part of care networks. The analysis has sought to address not only what was said, but also the silences, on the assumption that what is not explicitly mentioned constitutes a central element in understanding the dynamics between care and technologies.

A fundamental finding is that everyday objects tend to become invisible in participants' accounts: their presence is so constant and fluid that they become taken for granted and simply fade into the background. Such invisibility is itself evidence that technology is woven into the fabric of domestic life. Only when an object fails, or when a crisis occurs, does its materiality re-emerge, revealing just how deeply it is embedded in the care network. Problems arise, however, when the sociotechnical fit breaks down – when technology does not function properly, when it fails to adapt to the singularity of each body, when it symbolises a loss of identity or when it cannot be fluidly incorporated into everyday life.

The technologies identified in care are varied: medical devices incorporated into daily routines, prostheses that become part of the body, mobility aids, infrastructures such as lifts and the progressive use of ICTs. Fear of technological development is expressed most intensely in relation to ICTs, owing to the demand for lifelong learning that clashes with the rhythms of old age, drawing on ableist assumptions. By requiring constant and conscious attention, these devices fail to fade into routine, generating frictions that hinder their integration into the care network. This feature hinders their silent incorporation into the daily lives of older generations, even when they have the support and encouragement of younger ones. By contrast, more traditional technologies – mobility aids, medical devices and domestic infrastructure – are integrated with less resistance.

Despite the central place that artificial intelligence (AI) occupies in public debate, our participants do not perceive a clear link between care and this technological innovation. There is no explicit mention of AI, yet care practices involve constant interactions between people, machines and devices. Technologies are part of care, but they do not operate alone: they require bonds, human mediations, maintenance, adaptation and accompaniment, as well as continuous adjustments in response to changes in bodies and life situations.

The description of these assemblages – in which people, objects, affections and responsibilities are interwoven – reopens questions about the effects of technological developments on the social organisation of care. In particular, it is worth asking whether proposals such as smart homes, remote monitoring systems or medication management applications contribute to reproducing the unequal sexual division of

labour within households, or whether, on the contrary, they can themselves generate conditions that favour greater equity or agency.

Participants' accounts constantly revisit these tensions and reflect on the use of these new – and not so new – tools. The question of whether technology contributes to people's autonomy or whether, on the contrary, it (re)produces relationships of dependence – both towards devices and towards other people – remains open. This question invites continued reflection from a situated perspective, on the understanding that all knowledge is partial and that transformations in the relationships between humans and non-humans cannot be analysed in isolation but in articulation with the social, gender and generational dimensions – and many others – that cut across care practices.

These debates, long-standing in the social sciences, remain fully pertinent in the present context. Far from offering closed answers, the analysis presented here underscores the need to continue investigating technocare from approaches that recognise the complexity of everyday networks, the centrality of human ties and the ethical dimension that runs through every care practice.

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