PROFESSIONAL STAKEHOLDERS' VIEWS OF THE USE OF DIGITAL TECHNOLOGIES IN SPANISH LONG-TERM CARE

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Abstract: *Demographic change in Europe has resulted in an aging population, which presents new challenges for implementing and managing long-term care (LTC) systems. One solution aims to increase the efficiency of LTC by using digital technologies. This article focuses on professionals' opinions of the use of digital technologies in the administration of Spain's long-term care law (Law 39/2006, December 14, LAPAD). This qualitative research is part of SoCaTel, an H2020 project on the co-creation of LTC services in Europe. Ten focus groups were held with health professionals, care-taking relatives, and care workers, and six semistructured in-depth interviews were conducted with care recipients in Catalonia, Spain. This article presents the data collected from professionals. Professionals reacted positively to the use of digital technologies, in contrast to some previous studies that highlight professionals' strong resistance to digitalization. Professionals saw digitalization as a way to speed up and simplify administrative processes. However, they also identified serious obstacles to efficient digitalization.*

Keywords: *digitalization, long-term care, LTC, social services, Spain, LAPAD, ICT, digital technologies.*

INTRODUCTION

This article sheds light on the use of digital technologies in long-term care (LTC) services in Spain, which are mainly managed through social services and by social workers. We focus on the opinions of professionals—particularly those directly involved in LTC services as care agency managers, social workers, or caregivers—about the use of digital technologies in the implementation of Spain's LTC law, titled "Promotion of Personal Autonomy of and Care for Dependent People" (Law 39/2006, December 14, LAPAD; also known as the "Law of Personal Autonomy" and the "Dependency Law"). This law went into effect January 1, 2007. Citizens—particularly people with disabilities and older adults and their families—as well as social and care work professionals considered the LAPAD an important step for addressing care needs. On one hand, it facilitated women's participation in the labor market by funding eldercare services, and on the other hand, it promised to decrease the family care burden.

The LAPAD was passed within the context of Europe's "crisis of care" (Fraser, 2016), emerging as a consequence of demographic change. Welfare states urgently need to cope with this challenge and to find more cost-efficient ways to implement and manage LTC systems in their aging societies (Organisation for Economic Co-operation and Development [OECD], 2013, 2015). The broad use of digital technologies is seen by the European Union (European Commission [EC], 2014) as a means to satisfy the increasing demand for social care in a context of restricted public expenditures. We follow EUROFOUND (2017, p. 2) in defining digital technologies as "chip-based technologies and devices developed for information processing, storing and communicating purposes, with exponentially growing possibilities for recombination and new applications." One use of digital technologies is digitalization, which we define as the process of converting from analog to digital form a variety of LAPAD administrative procedures, such as the application process, the provision of information, and official interaction between the administration and end users. Digitalization allows an increase in the number of people assisted with reduced costs, enabling "more efficient management and delivery of health and social care, as well as increasing opportunities for community- and self-care and service innovation" (EU, 2007, p. 3). The digitalization of health services and social services is seen as a mechanism for improving these systems (EC, 2016a; Harris & White, 2009; Hill & Shaw, 2011; OECD, 2016; Scottish Executive, 2006). The general aim of our research was to understand professional stakeholders' views of the use of digital technologies in long-term care services in Catalonia (Spain), especially in the context of the implementation of the LAPAD.

The Spanish Care System

Spain's social services system was developed in large part during the 1980s, later than in other Western countries. This process occurred with the arrival of democracy to Spain. The social services system currently faces a great demographic challenge. In 2016, Spain had 8.7 million people over 65, 18.7% of the total population. The number of centenarians is also increasing (Instituto Nacional de Estadística [INE], 2017). Spain is near the top of the list of European member states in terms of the proportion of the population aged 80 or more. According to EUROSTAT (2016), Spain comes in third with 6% of its population, following Italy (6.7%) and Greece (6.5%).

In 2015, 1,265,435 people in Spain applied for LTC services and benefits under LAPAD (approximately 2.7% of the population). Of these, the Older Adults and Social Service Institute (IMSERSO, 2015) reported, 63% (796,109) received LTC services and benefits within the same year, while 30% (384,326) were approved for the benefits but were to receive them later than 2015. The remaining 7% (85,000 people) were still waiting for a response to their application at the end of 2015. Meanwhile, the waiting list for LTC (often referred to as "dependency limbo") had increased by 8,031 people by the end of 2017 (Asociación de Directoras y Gerentes en Servicios Sociales [ASGSS], 2017). As of 2018, the number of people in dependency limbo, either awaiting assessment or the start of services, is about 320,000. Approved applicants who died (often before receiving any benefits) greatly outnumbered the applicants awaiting review. The Spanish Association for Social Services' Directors and Managers decried the fact that 100 people die every day in Spain before having received their LTC benefits (ADGSS, 2017).

Three levels of administration are involved in implementing the LAPAD: national, regional, and municipal (Comas-d'Argemir, 2015; Deusdad, Comas-d'Argemir, & Dziegielewski, 2016). Spain is divided into regional governments (known as autonomous communities) with a certain amount of administrative autonomy. The officials of each region decide how to design and implement the various benefits, but service provision and follow-up are performed by municipal social workers. Because the LAPAD is run by municipal social services and not by the health department, a major challenge of the law is to coordinate the efforts of social workers, health professionals, and health-care providers. Regional governments in Spain are fully responsible for social services according to Article 148.1.20 of the Spanish Constitution. Thus, each of the 17 regions has its own social service law. In the case of Catalonia, where we carried out our fieldwork, local municipal social services are responsible for primary social care (Catalan Social Services' Law 12/2007, 11 October). Primary social care includes providing social assistance benefits and care services and benefits (although the latter are assessed and evaluated by regional government agencies). Although through the LAPAD older citizens have a basic right to benefits, each region provides services in its own way. Services are conditioned firstly by each region's portfolio of services and then by each municipality's resources. The main services and benefits established by the LAPAD are

- Day centers
- Care homes and nursing homes
- Telecare
- Home care
- Home care allowance (provided to a family carer living in the same home)
- Personal assistant (although uncommon except for in the Basque region).

The application process is quite long. First, applicants must apply for benefits from the LAPAD, and it can take as long as 6 months for them to receive a response. During this time, applicants are assessed externally to identify their degree of dependency (i.e., 1 = moderate, 2 = severe, and 3 = total). Even after applicants have been approved for care, they sometimes wait an additional year to be assigned one or more of the benefits mentioned above. The provision of each benefit is decided by the municipal social worker in conjunction with the care recipient and his/her family.

As already explained, the LAPAD is administered separately by each of Spain's regional governments, and the use of digital technologies also varies by region. Here we describe the use

of digital technologies in the autonomous region of Catalonia. LAPAD applicants and/or their family carers can download the application form from the regional government (*Generalitat de Catalunya*) Web site. The application must be printed and taken to the applicant's GP (medical general practitioner) for a medical report and to the applicant's bank for a stamp. Finally, the applicant or the family carer must submit all paper documents to a local, regional, or national office involved in the LAPAD. None of these stages are digitalized.

Once the application is registered, all data is entered into an electronic file by a subcontractor of the regional government. The Catalonian applicant has no online access to his/her application.[1] The telephone number provided to applicants offers only general information and thus no information on application status. The only person who can learn the status of a given application is the LAPAD manager at the corresponding municipal Social Services. This manager can retrieve the status of applications by checking the ProDep system (i.e., the Program for Fostering, Planning and Promoting Personal Autonomy and Care for Elderly and Disabled People). The future care recipient or his/her family can have online access to the waiting lists for services for older adults. However, the Web site interface is not user friendly and requires digital identification through an electronic signature and/or certificate (idCAT). Moreover, the interface is poorly publicized and most applicants and their families are unaware of it.

The role of family members in this complex application process is crucial. We use the term "family carer" to refer to relatives in charge of an older adult with care needs. Family carers typically oversee the LAPAD process (application, enrollment, meetings with social workers, etc.) and may also be responsible for helping the care recipient with the basic activities of daily life. This care burden is often distributed among family members (usually the husband or wife and their children). This family involvement in care is partly a remnant of traditional Mediterranean family care strategies, which have continued even after women's incorporation into the labor market. Families also use this strategy to cope with a deficient state care system, as has been noticed even in Nordic countries (Jolanki, Szebehely & Kauppinen, 2014). The term family carer attempts to capture the state's reliance on family members in handling the LAPAD's complex procedures. We adopt it instead of the alternative "informal carer" (Häikiö & Anttonen, 2011), a less precise term that also includes irregular care workers coming from migrant communities.

Challenges of Digitalization in Care and Social Services

The digitalization of health care services and social services is seen in different studies as positive and complementary to face-to-face interaction. However, some challenges are emerging and further research is needed, for example, on areas such as how digital technologies can enhance social interaction and how patients and professionals use "social networking" (Griffiths et al., 2012). Digitalization has both direct and indirect effects, some of which cannot be predicted in advance (Loos, 2016). Some social workers view the use of digital technologies in their day-to-day practice as a form of de-professionalization that depersonalizes social work practice (Parrott & Madoc-Jones, 2008), raises ethical issues (López, 2014; López-Peláez, Pérez-García & Aguilar-Tablada, 2017), and decreases managers' control over social workers' activities (Loos, 2016). These attitudes can create a significant barrier to the acceptance of digitalization.

Digital technologies can be used to mechanize the entire process of allocating benefits, thus eliminating the need for direct interaction between professionals and care recipients. For this reason, some social workers see digitalization as contradicting the essence of social work practice, which is based on face-to-face contact. Another potential downside of digitalization is that increased automation means decreased flexibility. Analog "street-level bureaucracy" (Harris & White, 2009; Lipsky, 1980) allows professionals to use their discretion to decide how policies will be implemented and to adapt procedures to the needs of a given care recipient. Digital processes can reduce professionals' room for maneuver, leading many social workers to resist digitalization.

One of the main concerns of social workers in Spain is the bureaucratization of social work and care work (Hidalgo-Lavié & Lima-Fernández, 2018; Viscarret, Ballestero, Idareta, & Úriz, 2016). Social workers, who are in charge of implementing social care, face a double mandate. On one hand, they must display the essence of direct social intervention, defending citizens' rights. On the other hand, they must implement governmental mandates using the bureaucratic systems in place (Viscarret et al., 2016). According to Lipsky (1980), this is understood as a final level in policy-making, where public servants (social workers, in this case) have to make decisions quickly and in a way that will be understandable to citizens.

According to Sourbati (2009), the lack of digital skills and the "perception of irrelevance" (p. 1095) of the tools introduced are seen as the two main factors holding back the use of digital tools among social work and care professionals from organizations. Another challenge to digitalization is the "digital divide" among social services' and care services' users. Marginalized groups, such as ethnic minorities and nonEuropean immigrants, often have little access to digital technologies (Foley & Ram, 2002), even though mobile phones increasingly are used widely among all social groups. People who are digitally illiterate or use little or no technology tend to have less social engagement than those using digital technologies. At the same time, other studies highlight the fact that social capital enables individuals to overcome the digital divide in terms of access, general use, and online communication (Chen, 2013). Beyond the question of access, we see differences related to the amount and/or type of online activities carried out, including the use of social networking sites (e.g., Facebook or Twitter). Online activities and social media have been defined as a second and third digital divide, respectively. The existence of multiple digital divides implies that more tailored policy interventions are needed, which reflect Internet use as an activity that can lead to isolation even as it allows users to perform a range of tasks (Haight, Quan-Haase, & Corbett, 2014; Petrovčič, Fortunati, Vehovar, Kavčič, & Dolničar, 2015)

Another obstacle is a generation gap that makes it hard for older adults to take full advantage of digital technology when they engage with social services. Older adults are generally slower to adapt to new technologies. Some studies have described this generation gap as merely a temporary phenomenon because today's youth are growing up with nearly universal access to digital technology. For example, in 2013, 50% of people over age 65 in the UK used the Internet (Sourbati, 2015). However, the majority of adults in their 80s have never used the Internet at work. And in later life, when they become frail, older adults have difficulties using many digital technologies. When they do use them, it is through "familiar media practice" rather than through active and intense engagement (Nimrod, 2014). A range of variables have been shown to act as impediments: for instance, arthritis of the hand, low education level, low income, and no access to a computer (Heart & Kalderon, 2013; Selwyn,

Gorard, Furlong, & Madden, 2003; Vorrink et al., 2017). Lee, Chen, and Hewitt (2011) revealed four dimensions of constraints on older adults that fall into two categories: internal factors and external factors. The internal factors include intrapersonal factors (i.e., participants felt they were too old to learn and/or that digital technologies are useless or too complex) and functional ones (i.e., participants showed a decline in memory and/or logic). The external factors include structural ones (i.e., participants found digital technologies too expensive or had no access) and interpersonal ones (i.e., participants had no one to teach them and/or no one with whom to use digital technologies).

Note that doubts about older adults' abilities to learn or to adapt to changes often manifest an ageist stereotype rather than objective facts. As pointed out by Sourbati (2015), older adults are treated as a "residual category" when new media technologies are analyzed. Generally, the only older adults to be depicted on social services Web pages are frail, making it difficult for other, more vibrant older adults to identify with the images they see on these sites. However, older adults' lack of representation online does not mean they do not use the Internet. In fact, a survey carried out in 2007 in 27 European countries showed that 31% of men and 19% of women aged 55–74 used the Internet at least once a week (Koch, 2010). According to Lee et al. (2011), the ability to access a computer does not depend principally on age; rather, it is linked to education level, income, and living situation (solitary or shared). Differences between the sexes correlate with education and income, as well as other variables such as ethnicity, and show the diversity in using new technologies (Friemel, 2016; Sourbati, 2015). The concept of "age heterogeneity" implies inequalities within the older population, determined by restriction in social space, communication facilities, health, and leisure, among others (Sourbati, 2015).

Older adults' resistance to using digital technologies has often been interpreted as evidence that digital technologies are not appropriate for them. Selwyn et al. (2003) pointed out that older adults make little use of digital technologies not because they lack the necessary knowledge, but because these tools offer them relatively few advantages. These findings suggest that professionals need to refocus efforts to get older adults to use digital technologies. In short, the problem lies not in older adults themselves, but in the fact that technologies designed for their use have not been sufficiently accessible. Researchers and care providers should consider adopting models of technology that better suit the needs and interests of older adults. According to several studies, older adults adapt technologies that address their needs, especially when services are co-created (codesigned and coimplemented) with care recipients to address their real needs (Baillie & Schatz, 2006; Hyppönen, 2007; McLaughlin, Rosen, Skinner, & Webster, 1999). Evaluations by older adults can be very useful in developing and improving digital technologies (Hyysalo, 2007; Mäyrä et al, 2006) and can empower the older user (Parrott & Madoc-Jones, 2008). Even when older adults cannot use digital technologies directly, their carers can take advantage of simple, popular technology (such as smartphone applications) to improve their quality of life.

Despite the challenges of digitalization that we have described, particularly the need for professionals to know how to use digital technologies, the International Federation of Social Work is fostering the use of digital technologies among professionals (Hidalgo-Lavié & Lima-Fernández, 2018). This trend is occurring in the context of established eGovernment practices boosted by the European Commission and DG Connect (EC, 2016b, 2017). A particularly bright spot in the use of digital technologies has been the successful use of mobile phone applications, as in the case of GPs who use continuous tracking for patients with dementia

(Miskelly, 2005) or facilitate community support for older adults who are aging in place (Sixsmith, Mihailidis, & Simeonov, 2017). Other examples include mobile phone apps that allow diabetes patients to manage their care (Durso et al., 2003) and mobile phone cameras that facilitate the diagnosis and treatment of skin lesions (Kroemer et al., 2011). Also, text messages may be increasingly supplanting the use of emails in communication between patients and care providers (Petrič, Petrovčič, & Vehovar, 2011; Ramirez, Dimmick, Feaster, & Lin 2008). Finally, mobile phones play an important role in older adults' emotional support through social networks (Petrovčič et al., 2015).[2]

This increasing array of applications and other digital technologies for care and health purposes is not being used widely in LTC in Spain. For now, conversations on digital technologies in Spain focus on the digitalization of administrative processes rather than on care or health. Our study asks how professional stakeholders view the use of digital technologies and digitized materials in long-term care services in Spain. Identifying professionals' views will provide scholars and policymakers with essential information for improving services. Research on stakeholders use and practice of new technologies has been carried out recently in Spain (Hidalgo-Lavié & Lima-Fernández, 2018); our research goes a step further in offering a qualitative look at stakeholders' views of the use of digital technologies in eldercare, revealing their attitudes, their current practices, and opportunities for the future of eldercare.

METHOD

Research Sample

The results presented in this study are part of a Horizon 2020 European project, SoCaTel, based on the use of technologies for the co-creation of LTC services in Europe. The SoCaTel project includes four case studies representing different welfare models (Finland, Ireland, Spain, and Hungary). This paper is based on the Spanish case. Between January and April 2018, we held 10 focus groups of three to eight participants, involving health professionals (geriatricians, general practitioners, nurses), social workers, care workers, care managers, LTC recipients, family carers, and older adults without care needs. Most of the focus groups were homogenous, allowing us to measure how certain groups of people reacted to a similar set of problems and experiences (see Tracy, 2013). Participants were recruited through social services departments in the provinces of Barcelona and Tarragona in Catalonia, Spain.

In one case, we opted for a focus group including care recipients and relatives so that the relatives could support the care recipients. Additionally, we held six semistructured interviews involving one or two participants. A total of 57 people participated in the study, covering a wide range of viewpoints, although the current analysis focuses only on our exchanges with 29 professional stakeholders. The professionals ranged in age from 30 to 59, while older adults ranged from 65 to 96 years, and family carers ranged from 54 to 78 years. Participants had differing educational backgrounds (high, middle, lower, or none); the professionals participating in this study came from middle and high educational backgrounds. Data saturation was reached and recruitment was stopped when we noticed that new participants expressed the same ideas that earlier participants had expressed and no new viewpoints were emerging.

Focus groups and interviews were carried out in four areas of Catalonia: Vilanova i la Geltrú (Garraf district, Barcelona province), Tarragona, Reus (Baix Camp district, Tarragona province), and Viladecans (Baix Llobregat district, Barcelona province). Gatekeepers (key stakeholders who have established contact with other stakeholders in their sector) were crucial to contacting participants and our gaining access to their field. This was done through social services and health services departments. Our participants fell into the categories as presented in Table 1. However, in this article, we present data only from the professionals.

Interview Guides

Focus groups and interview questions for this part of the study centered on the professionals' views of the implementation of the LAPAD, particularly their views related to the use of digital technologies in implementing the law. One set of questions helped us understand how professionals were implementing the LAPAD in their daily work, including the application process, eligibility criteria for care recipients, and the dependency assessment process. For example, we asked which procedures were currently digitized and which were conducted in

Table 1. Breakdown in Categories of Interviewees for the Overall SoCaTel Project in Spain.

PROFESSIONALS*	12 Social workers: municipal social workers (Vilanova social services); social workers at primary care centers, social workers at nursing homes; social workers from the LTC team at the municipality (EAD)
	4 physicians: general practitioners in primary care; geriatricians from hospitals
	4 care workers from private companies working for the municipality
	5 primary care nurses
	4 care managers: nursing home managers, home care managers, day care center managers
FAMILY CARERS: relatives in charge of care duties, who organize care tasks and are in regular contact with care workers, social workers and doctors, and other professionals involved in care.	12 relatives (sons, daughters, husbands, wives, nieces and nephews) who take care of older adults
CARE RECIPIENTS	11 older adults who have applied for LTC benefits and services through the LAPAD, including older adults with dependency degrees 1, 2 or 3; older adults who live at nursing homes and care homes; older adults who live at home with family carers
OLDER ADULTS WITHOUT CARE NEEDS	4 older adults 65–75 years old

*Additional demographic information on this study's participating professionals is provided in the Appendix.

person. We also asked more specific procedural questions, such as how professionals received information about an applicant's degree of dependency and how applicants were selected from

the waiting list to receive services. Another set of questions focused on the professionals' opinions of the procedures and how they could be improved. For example, we asked how the digitalization of social services should be carried out, how coordination between health services and social services could be improved and, which procedures could be speeded up. Finally, we asked a series of questions that were specific to each profession.

Procedure and Ethical Considerations

Focus groups lasted between 1 and 2 hours and interviews lasted 30 minutes to an hour, depending on the availability of the informants, their level of fatigue, and the flow of the conversation. All focus groups and interviews took place face-to-face in a comfortable setting. The first set was carried out with Vilanova Social Services in a building dedicated to care services and LTC services. The second set took place at the Department of Anthropology, Philosophy and Social Work of Rovira i Virgili University (Tarragona). We also carried out interviews in two nursing homes in Cambrils and Viladecans and in a convalescent hospital in Reus. Focus groups and interviews were conducted in Catalan or Spanish, languages in which the participants were fluent. The quotations presented here were translated into English by a professional translator.

Before starting each focus group or interview, the researchers introduced the project and its goals and provided participants with an information sheet, a participant consent form, and a confidentiality statement. In addition, the researchers explained to the participants that their data would be recorded and anonymized and that they had the right to withdraw from the study at any time.

Participants were given time to read and sign the documents, and then the interviewer opened the conversation. The role of the other researcher(s) present was support: to take notes, to help manage turn taking, and occasionally to ask follow-up questions. At the end of each session, the researchers gave the participants a thank you letter and asked them to fill in a sociobiographical survey for quantitative data.

Data Analysis

The recordings of interviews and focus groups were transcribed (anonymously) so that we could perform a qualitative analysis using atlas.ti. We coded transcripts deductively according to key categories linked to the main topics (i.e., LAPAD, coordination, digitalization and digital technologies, aging in place, digital technologies and older adults, etc.). We also used open, inductive coding (e.g., lack of agility in implementing the LAPAD, lack of information surrounding the LAPAD, digital technologies and care, once-only principle for providing information, digital technologies and professionals) as needed.

RESULTS: PROFESSIONALS' VIEWS ON DIGITALIZATION AND DIGITAL TECHNOLOGIES

Our findings illuminate how professional stakeholders view the use of digital technologies in LTC services in Spain. They are presented here in three sections: professionals' attitudes about the use of digital technologies, how professionals currently use digital technologies, and opportunities for more effective digitalization.

Professionals' Attitudes About the Use of Digital Technologies in LTC

The professionals in our study were more open-minded about the use of digital technologies in LTC than prior research has suggested. They supported their use as long as face-to-face contact with care recipients and their families was not impeded. Technology was seen as a tool to speed up and simplify administrative procedures, but not as a substitute for the social workers' role in deciding on care services and supervising care. They also highlighted that care recipients needed to have contact with a person who can support them in their use of digital processes, as reflected in this comment by a care manager:

> P50: *There are lots of procedures that are very speedy and practical on the computer, but I think that, behind any resource, there has to be a person who can clarify things face-to-face. Like when they go, especially, to Social Services, people receive so much information in such a short time that when they come to you, you have to explain it to them again.*

The care workers' task is to tend to the care needs of older adults rather than to handle management and/or administrative issues, which have a more technological emphasis. Not surprisingly, care workers and other professionals were skeptical of older adults' ability to use electronic devices. Although older adults can face challenges in using digital technologies, as described above, the idea that they cannot learn to use them seems based in an ageist stereotype. For instance, older adults use telecare, which has spread all over Spain (Carretero, Stewart, & Centeno, 2015). The following exchange among care managers reflected the idea that older adults cannot learn or enjoy new technologies:

> Researcher: *And WhatsApp works well for you?*
>
> P52: *Yes, because it's a very direct form of contact that I have. It's different, very different. It's a very direct form of contact with family members.*
>
> Researcher: *With the care recipients themselves too, or just with family members?*
>
> P52: *More with family members; the recipients themselves are very old to be--*
>
> Researcher: *Yeah.* [But] *some of the recipients that we've interviewed are in pretty good shape. They use mobile phones, and they told us they'd like to take computer classes. Not a lot of them, but some.*
>
> P50: *Yes, they're starting to have cell phones.*

Despite its increasing use, WhatsApp is raising concerns about ethics and privacy. This was clearly demonstrated in this exchange among care managers:

> P52: *I was really hesitant about using WhatsApp for information, but the family members--*
>
> P51: *I was a bit scared about data protection, and so sometimes, always, when I use it, it's "Call me; we have to talk* [about]*" or something like that. And then, that way, they see it at some point. Because sometimes you spend all day calling them and they don't pick it up,*

or you leave a message, and they don't call you back for-- And sometimes, yes, I have used it [to provide information] *with a few families in particular.*

Researcher: *So, you don't give out information on WhatsApp?*

P51: *Look, no, I don't. Because I don't know...I still don't know. It's about data protection, and you don't know at what point--*

P49: *Like with emails. The ones they send you have to be encrypted with a password. Because otherwise, in terms of data protection, depending on the kind of information it is, you can't send it.*

Some of the professionals pointed out particular challenges that care recipients faced in using digital technologies, such as illiteracy or poor overall health. This was contained in comments from two care workers:

P12: *I have a lady who doesn't know how to read or write, and she signs for me* [on the tablet]. *And I feel so satisfied to see that the lady marks an X—and for her that's a whole new world and for me it's a joy.* [She says,] *"It turned out crooked."* [I say,] *"Perfect. They'll pay me just the same." …We're talking about people in their 80s, and here I go and give an old man a tablet and it's already enough for him [to manage with technology].*

P14: *It depends on what it is; that's what I say. If it's an application that you have to touch the screen with your finger, it's okay. They can do it with no trouble. And signing— whoever signs will be able to sign.*

The majority of professionals we spoke with (especially social workers, nurses, and GPs) were open to the use of technology, despite concerns that they might have about care recipients' ability to use it. Sometimes these concerns were legitimate, and sometimes they were based in stereotypes. On the whole, we found professionals open to the use of digital technologies as long as it took into account care recipients' level of functioning and the ongoing need for face-to-face contact between care recipients, professionals, and families.

How Professionals Currently Use Digital Technologies

Social workers, and, above all, care workers, were enthusiastic about digital technologies that would enable them to get in touch with care recipients' families quickly. Although they were accustomed to using e-mail, they reported that e-mail was not fast enough. Personal cell phones in general, and WhatsApp in particular, are becoming a popular way for care managers to keep in touch with families. Care workers are not allowed to use their personal mobile phones with care recipients. However, it is acceptable for managers from care work companies to use their phones both for internal communication and for communication with family carers, as seen in the following examples, the first from a care worker and the second from a care manager:

P15: *We're not allowed to give our phone numbers to the user. In the homes that I visit, for example, I have the phone number perhaps of the son. "I'm leaving my phone number here in case something happens." But I have to call from the home's landline; I'm not allowed to call from my cell phone. If I go to the home and there's something, maybe "Look, this is missing" or whatever, I can call but I can't give my phone number.*

P52: *For example, I do* [use WhatsApp] *because everything that's, of course, I'm responsible for it all. So everything that has to do with families, it's better to send me the*

issue through WhatsApp, all the changes, everything, rather than call me every minute. …They're creating groups for me with the families: the user, the family, and of course, me, the administrator. Any problem that comes up, "He's gone to the doctor"… So of course, especially with this gentleman, it works great because before, what you said, you told one person and the other person gets lost. You put it there [in WhatsApp] *and everyone is informed: "He's been to the doctor, his medication has changed, this has changed…"*

For internal communication between home care workers and their managers, WhatsApp also was used. The following exchange between care workers explained how it might work:

Researcher: *Do they take a photo of the schedule and send it to you by WhatsApp?*

P13: *Only if there's a change, not always.*

P15: *For example, this week, since we had the course and they changed my schedule for the hour before and the hour afterwards, they sent it to me by WhatsApp, and I have it there.*

Professionals also mentioned using GerApp, a tool similar to WhatsApp. However, they pointed out two drawbacks to GerApp: It is less user-friendly than WhatsApp and it is unidirectional (meaning that they can send out messages to families but families cannot respond). In the following exchange among care managers, we saw the challenges presented by GerApp:

P51: *What I see is that, for lots of sons or daughters or relatives, opening up an application--*

P50: *WhatsApp is already more internalized for them.*

P49: *Because of the* [advanced] *age of many of the carers that we have, at least ours, it's a bit difficult.*

P50: *Well, they're getting there. They're younger and younger. We're considering doing it somehow with a mobile phone that's… not my mobile phone, a mobile phone that would be there at the nursing home and that would only be used during working hours or something. We're thinking about it, because there they use e-mail a lot. There are lots of people that give you their email address, but then they don't check it. Sometimes we ask for their email address when they check in or when they start at the day center. And sometimes you send memos of things—I don't know, like we're remodeling or whatever— and you see that a lot of people, you don't know it, but you realize later that a lot of people haven't even seen it and you don't even know if they've opened it or not.*

Opportunities for More Effective Use of Digital Technologies and Digitalization

The advance of digital technologies offers a clear opportunity, as noted by professionals: The digitalization of administrative processes increases the efficiency and quality of care. In particular, our participants noted that it could aid the coordination among professionals in different areas and could facilitate the provision of information to care recipients and their families. In terms of coordination at the moment, professionals working with a given care recipient often lack access to files maintained by other professionals on that recipient. LAPAD is implemented by the Department of Social Services, but it is inextricably linked to Health Care Services because care recipients must submit a medical report to apply for LAPAD benefits. However, when GPs or geriatricians in hospitals have older adults with care needs

and health problems, they have serious difficulties in figuring out the trajectory their patients might have had at Social Services related to their care needs and/or to other situations. Clinicians only have access to patients' Shared Medical Record and not to their history of interactions with Social Services. Furthermore, families are generally not familiar with the procedures laid out by the LAPAD, which are quite complex. This lack of coordination between professionals and departments is one of the main obstacles presented by the LAPAD. This lack of coordination wastes time and financial resources. It means that professionals often cannot access information that they need to perform their jobs, as explained by a nurse in the following example:

> P46: *I think that the social information is unknown to the family because there isn't, there isn't good coordination between the health team on-site and social workers, no matter how many visits they do together. We normally do visits together, when we can, because we don't have the same schedule and availability of a social worker. But the social information is information that the family doesn't know how to give. They don't know how to tell you that this is what my coworker told them, right? They don't know the degree of dependency. When you ask them, it's very complicated for them. The social history is more complicated and for us, well, it's looking for a shared history.*

Coordination can be difficult even within the same department. Only one manager for each social service area had access to the detailed information, which in turn led to a considerable slowing down of the entire process, as this social worker described:

> P3: *This can be the case if you just want to know if the person has already applied for dependency or not. You don't want to know more. It's to know if someone started the process, carried out a review… What do you do? And of course, you're supposed to get in touch with the manager by e-mail or telephone. I think this is a waste of time for both professionals. If there were any other way.…*

Digitalization could help solve these problems. It would also connect the Department of Social Services with the Health Department, making it possible to share patients' social welfare and clinical histories. Then, professionals could check the patient's file and perform the necessary follow-ups. Professionals' difficulties in accessing the clinical history and the social welfare information of patients digitally implies that care recipients and their relatives have to go to different administrative offices to request and submit the different forms required for the LAPAD application. A geriatrician described the situation as follows:

> P18: *I have the feeling that we treat the end users like messengers [couriers] because they ask me for a report. Ok, I generate a report…and I have to give it to the user so that he can go to the social worker and give him or her the file. But, for example, when my colleagues ask us for an evaluation from doctor to doctor, I get it through the computer. That is, we don't have to treat the end-user like a messenger.… For me the ideal situation would be if this platform could unify information. The social information, whether it comes from City Hall or from wherever, would be part of [the] patient's clinical history, and I could have access to it from the hospital… or the hospital social worker could have access to it, too.*

Another opportunity offered by digitalization is the provision of information to care recipients and families. Patients often do not know whether they have already applied for the

LAPAD or what degree of dependency they have been assigned. They do not understand the difference between dependency and disability (e.g., an 85% disability does not mean a high degree of dependency according to the LAPAD). Furthermore, the "once-only principle" is not respected, in the sense that care recipients have to provide standard data more than once to several departments and administrations. Because information is not easily available through digital means, social workers provide key support to care recipients and their families during this process. Concretely, they identify the need (together with physicians), explain the process, help patients during the application and follow-up, coordinate with other departments, inform about benefits and services, and manage services. If all these procedures were handled digitally, the workload would decrease and decisions would occur faster. The complexity of the LAPAD application procedure places significant pressure on social workers, who have to meet with applicants to provide information about their application status. Such meetings are a waste of time and professional resources, and they in turn slow down the provision of care. The following comments by a care manager and a social worker, respectively, clearly illuminated the complexity of the process and the need for digitalization:

> P53: *I also think that for any query, no matter how small it is, you end up having to ask for an appointment to speak with a social worker and maybe—because it's normal: they have a lot of work—you have to wait for two months, and it's only to find out what number someone is on the waitlist.*

> P9: *—Even for filling out the papers. You have to keep in mind that a lot of carers or family members have difficulty in filling out that form that they go to pick up. They* [officials] *give it to them and they have to fill it out. To make these things easier would be really good, because it's hard for them* [the clients and/or carers]—*what we talked about first, that it will still be a few years for technology and older people. It's difficult for the majority of them, and they don't have the flexibility or the opportunity to do it. Making things easier would be really key because it's really unwieldy when they have to start the process.*

According to the professionals, digitalization of social services could be a solution to facilitate LTC procedures. However, any digital system should be user-friendly and quick to avoid the risk of slowing down processes rather than speeding them up. For instance, the hardware and software that Social Services uses to carry out its work under the LAPAD are not optimized. Professionals complain about poor Internet connections, programs that are not user-friendly, and old PCs. In its current state, digitalization is not seen as making tasks quicker or easier, as explained by this social worker:

> P4: *I really think that instead of digitalization, which is great, but there's a lot of work in digitalizing. And you should really do the screening work of saying what you really need, what you don't need. And the tools that we have should really make our work easier. That is, the goal is to improve the work of professionals, and sometimes I think that it slows them down and that instead of helping—be it because the programs of the Generalitat [regional government] are slow, because access is difficult, because of your PC—you find yourself in that situation. Sometimes I get really angry; it's an obstacle in your daily routine and you say, "This is slowing me down." Sometimes we've done a screening process to say which documents we digitalize and which we don't. The program we have for digitalization at Social Services is completely obsolete; It's slow.*

DISCUSSION

The purpose of this study was to investigate professional stakeholders' opinions about digital technologies in LTC so as to understand whether and how these tools can improve the procedures of the LAPAD. Our participants were optimistic about the use of digital technologies, as long as they did not impede face-to-face contact. One attitude that must be overcome is the professionals' skepticism that older adults can themselves use digital technologies.

Digital technologies could assist professionals in meeting the LAPAD's objectives, but, according to professional stakeholders participating in this study, use of such technologies is ineffective. Information provided for applicants and professionals online is insufficient, and platforms for accessing online information are not user-friendly. These obstacles affect professionals, care recipients, and their families. Additionally, applicants and their relatives are forced to act as "couriers," delivering paper forms between different administrative departments and services involved in the application process. Finally, the once-only principle has not been implemented, and applicants find themselves providing the same information multiple times.

Despite the challenges, the professionals agreed on the positive consequences that digitalization and digital technologies could have in implementing the LAPAD. In particular, digital technologies could be used to simplify the application process, improve communication between and within departments, and manage access to social welfare and health department files. Table 2 summarizes the opportunities and challenges that we have identified in the use of digital technologies in administering the LAPAD.

As a preview study has shown (e.g., Hidalgo-Lavié & Lima-Fernández, 2018), technology is seen as a positive for management and administrative tasks. The negative stereotypes about technology are overcome when technology reduces bureaucratic burdens, facilitates contact with family carers, and improves coordination among professionals. This

Table 2. Opportunities and Challenges in the Digital Administration of Spain's Long-term Care Law (Law 39/2006, December 14, LAPAD).

Opportunities	Challenges
Overcome bureaucratic burden	Difficult for some older adults to adopt
Improve coordination	Some citizens are digitally illiterate
Address citizens' needs through co-creation	Out-of-date digital services and equipment
Make the system more agile	Complexity of encryption
Provide information to citizens	Digital divide
	Professionals' stereotypes about older adults' ability to use technology

practical and utilitarian use of digital technology for internal management of social services does not generate resistance. In this regard, digital technologies are seen as practical tools to help in coping with the increasing bureaucratic burden. Professionals see that digitalization can not only simplify their administrative tasks, but also reduce time spent on them, in turn allowing them to invest more time in care recipients' needs. In short, the effective use of digital technologies

could allow professionals to spend more time on social intervention and less on administrative tasks.

Professionals' main goal is not to use technology per se but to engage in high-quality social work and health care practices through direct contact with users. Their view of technology is purely instrumental: They are not interested in technology for its own sake. This needs to be understood in a context where the use of digital technologies against the backdrop of previous barriers and resistance to digitalization among social workers and health professionals is becoming relevant, although face-to-face contact with users is still considered necessary. All in all, professionals were found, in this study, to be open to new forms of eGovernment and, above all, to facilitating coordination among professionals (EC, 2017).

CONCLUSIONS

Our focus groups with professionals highlighted the difficulties that families face in coping with increasing everyday care needs of aging, disabled, and infirm family members. The lack of public resources continues to put families under pressure. Professionals, people with disabilities, older adults, and their relatives greeted the LAPAD with hope and high expectations. However, implementing the LAPAD has presented a serious administrative burden for professionals and families, which we suggest can be overcome with the careful digitalization of administrative processes. Professionals in Spain do not yet seem to be debating the use of digital technologies in health and care practice. But they are very much interested in using digital technologies for health and care administration; they see digitalization as a practical approach for coping with management and administrative duties. Effective digitalization could make the LAPAD application process smoother for professionals and applicants, while also saving time and making it possible to monitor an application's progress. Digitalization also provides an opportunity to lighten professionals' administrative burden and, in so doing, give them more time to dedicate to social intervention with care recipients. In short, the LAPAD's professional stakeholders tend to see digitalization as an opportunity rather than a threat. Nevertheless, digitalization needs to be accompanied by training, and it should respond to real citizens' needs and capacities.

In our assessment, we must take into account that, in 2011, as a response to the economic crisis, the Spanish government introduced its first cutbacks. In these cutbacks, the allowance for family carers was reduced, and copayments and use of the private sector were increased. Some people died without receiving benefits or services as the result of long waiting lists (Deusdad et al., 2016). The application process can take up to 2 years, and during this time, applicants often have no information about the status of their applications. This situation generates anxiety and a deep sense of abandonment by the State. These difficulties are exacerbated by the fact that, by definition, families applying for the LAPAD are living through a complex and painful time. Moreover, many of the family carers are themselves older adults.

Our analysis in this paper has focused on professional stakeholders' views of the use of digital technologies in the implementation of the Spanish LTC law. The need for further research on older adults' opinions and use of digital technologies, so as to glimpse possible ageist views from professionals and citizens, point to the limitations of this study. Future research should also take into account other health care and social work professionals from

other countries and other professional areas. Comparative international research would help to identify similarities and differences across contexts. Likewise, other areas of social work should be explored to identify similarities and differences in the acceptance of digital technologies, training opportunities, and possible contradictions between digitalization and social work practice and cross-disciplinary interactions (i.e., health care and social work). Research focusing on professionals' participatory involvement in codesigning and coimplementing technologies for their practices will also be needed, following a bottom-up approach to ensure that digitalization will be fully useful for professionals.

IMPLICATIONS FOR APPLICATION AND POLICY

From our data, we identify three practical ways that digitalization could be used to improve the implementation of the LAPAD in Catalonia. First, the application system could be simplified and digitalized, making it as understandable as possible for applicants and ensuring that it conforms to the once-only principle. Second, digital channels for providing information to applicants and their families' could be created. These could take the form of a video, Web page, and/or app that would offer information about the available LTC benefits and services and the application process. This initiative could help applicants and their families, as well as the general public, which is ill informed about the LAPAD. Third, a significant proportion of social workers' time is taken up by informing care recipients of the status of their applications. Providing a digital means for care applicants and their families to check their application status—and an administrative specialist to support them when necessary (e.g., a help desk)—would significantly reduce the administrative burden on social workers. To ensure the success of these new systems, professionals, care recipients and their relatives will need to be trained in their use. Also, whenever possible, they should be involved in co-creating the systems, to ensure that the designs will respond to real stakeholders' needs.

ENDNOTES

1. Although residents of Catalonia do not have digital access to their application once it has been submitted, other autonomous regions, such as Murcia or Madrid, do provide online access to LAPAD applications. However, the system for doing so is complex and thus rarely used.

2. Nevertheless, one of the main concerns about using smartphones and social media for professional purposes is whether privacy can be guaranteed (Antheunis, Tates, & Nieboer , 2013; Hidalgo-Lavié & Lima-Fernández, 2018).

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Appendix

Table A1. The Codification and Profile Information on the Professional Participants.

Participant #	Position	Sex	Age	Focus Group (FG) or Interview (I)
P1	Social worker	F	45	FG1
P2	Social worker	F	32	FG1
P3	Social worker	F	42	FG1
P4	Social worker	F	39	FG1
P5	Social worker	F	31	FG1
P6	Social worker	M	32	FG1
P7	Social worker	M	41	FG2
P8	Social worker	F	29	FG2
P9	Social worker	F	41	FG2
P10	Social worker	F	40	FG2
P11	Social worker	F	40	FG2
P12	Care worker	F	59	FG3
P13	Care worker	F	58	FG3
P14	Care worker	F	38	FG3
P15	Care worker	F	51	FG3
P16	General practitioner	F	42	FG4
P17	General practitioner	F	48	FG4
P18	Geriatrician	M	39	FG4
P19	Geriatrician	M	56	FG4
P38	Nurse	F	43	I
P45	Nurse	F	48	FG8
P46	Nurse	F	42	FG8
P47	Nurse	F	47	FG8
P48	Nurse	F	50	FG8
P49	Care manager	F	58	FG5
P50	Social worker	F	47	FG5
P51	Care manager	F	35	FG5
P52	Care manager	F	42	FG5
P53	Care manager	F	46	FG5