The Necessary Digital Update of the Camino de Santiago

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Abstract. The Camino de Santiago (Way of Saint James) was considered in 1987 by the Council of Europe as the first European cultural route. Since then, hundreds of thousands of pilgrims from all over the world have walked through the traditional cultural landscapes of this corner of Europe seeking their own personal journey, an experience of introspection that, at least in theory, demands disconnecting from the world. The pandemic caused by COVID-19 has meant the greatest crisis in tourism in contemporary times, especially in mass destinations, revitalizing by contrast other forms and tourist places, such as cultural routes. From the political objective of economic and social recovery, public administrations are promoting the digitalization and use of new technologies in the dissemination and management of the Camino de Santiago as a cultural and tourist product. According to all the plans and projects planned, in the next years not only the mobile device will be a tool to help carry out the Way, it will become essential to achieve a completely satisfactory experience.

Keywords: Camino de Santiago · Tourism digitalization · Smart tourism · Apps · Digital technologies

1 Introduction

To a certain extent, walking is to move from one place to another and intensely enjoy this experience, but since the Middle Ages the plan of walking was not always fulfilled. As we have pointed out on certain occasions, along with the long and costly pilgrimages of several months, other pilgrims made pilgrimages by substitution (sending others to make the route) or made costly donations [1]. Leaving aside these historical evidences, today the act of realizing the Camino de Santiago is usually focused on walking slowly the route, but it involves an important effort of prior preparation and, once completed, it generates abundant narrative and graphic material that circulates through the networks. Therefore, the most emblematic of cultural itineraries is at the same time an intense experience of travel with effort and a set of previous activities of preparation and subsequent celebrations, many of which can only be carried out by using the Internet.

Consequently, the fact that public administrations and numerous private entities use the network to inform, communicate or sell on the Camino is an undoubted reality that

has been tried to characterize [2, 3]. For two reasons, this reality has become particularly relevant in recent times. The first is the widespread use of big data and the recourse to digitalisation of all types of information on the route, which is now evident. The second, the impact of the COVID pandemic, has led to an intensification of blogs, information and forums on the situation. A route that is analyzed with concern, also with hope for the future and that is rethought in intense virtual debates that we have begun to study [3].

2 Tourism and Digitalization in PostCOVID Era

As noted in numerous studies and articles on the subject, tourism activity has been completely transformed into the digital era [4–6]. On the one hand, the network has made it possible to multiply the volume of information available about the whole world and, consequently, the destinations to which to travel. On the other hand, it has radically innovated the ways in which tourism products are traded. Third, it facilitates the change in the relationships between actors linked to the activity. Tourism related companies are less and less interested in closed holiday packages; they are obliged to diversify their offers. At the same time, the rigidity in the relations between citizens-consumers and companies-producers of the service cease to be linear and repeated. Today they can express themselves in many different ways [7, 8]. Tourists can directly connect and negotiate the book of a room, a guide to a destination or a ticket to an event. Companies can respect a high degree of self-organisation of the client and offer only very specific services in the whole tourist experience, among many possibilities.

2.1 Tourism in the XXI Century

In the present century the tourist activity has maintained a series of continuities with the immediately preceding stage, although progressive changes are detected that need to be commented. Among the permanencies, undoubtedly, the massive nature of the trips to rest and replace for a period, far from the place of habitual residence and work. Climate motivations continue to be very important to justify tourism practices, although with some novelties. Thus, the holiday period has become fragmented and has escaped monotony. People who goes to beach destinations, try to complete their experience with nature excursions, visits to historic centres or complementary practices guided by sustainability [9, 10]. Normally, the Sun and Beach destination is no longer the only one chosen for vacations throughout the year. Its hegemony has been tempered by emerging practices such as visiting scenically attractive cities or places, such as those situated in cultural locations, which proliferate throughout Europe. Tourism linked to these routes is perceived as less crowded, healthier and more environmentally friendly, as it is usual to resort to cycling or hiking to move around [3]. The cultural itineraries complement a climate tourism of Sun and beach, which is still the majority, but no longer covers all the expectations of the traveller.

As has been stressed, cultural itineraries are associated with a number of highly valued attributes of current tourism. First, the value of landscape, the encounter with the place, while enjoying a slow mobility [11]. Second, a cultural content that, although

not predominant in many cases, should permeate the traveller's experience [12]. Third, the existence of such valued referents as healthy individual exercise, contact with nature and the availability of time for oneself [10]. Fourth, a new way of knowing different localities and regions from a linear route [13]. A sketch that becomes a programmed route from the intensive management of ICTs and social networks.

2.2 Cultural Routes as Resource for the Enhancement and Conservation of Cultural Heritage: Territorial Resilience and Digital Technologies

Contemporary times have taught us that reality shows two inseparable facets: tangible reality and the set of images it generates. This is especially appropriate for cultural routes, marked by monuments (more or less preserved and restored), sets of symbolic or landscape value, and all kinds of attributes that enrich them. At the same time, these monuments, ensembles and elements are photographed, digitized, reproduced and retouched to the fullest [14, 15]. In the case of cultural routes, this intensive use of ICTs is manifested in a constant publicity, well presented, to encourage visits and tourism. Monuments, landscapes and other elements of culture are especially praised. It is encouraged to travel them from messages very worked repeated monotonously: a millennial path, the origin of Europe, time to disconnect, etc. It is evident that this digital advertising chooses some promotional attributes, while despising others. However, as later the travel experience allows stopping in the territory, the subsequent emission of messages by tourists and pilgrim through social networks it is possible to reconstruct the original message with those new elements that visitors of a country or carriers of a predetermined belief are highlighting after their own experience in the cultural route [16].

2.3 Digitalization and New Technologies in Cultural Landscapes

The whole process of codifying and promoting itineraries underlines the importance of the landscape. A landscape always humanized, whether in a traditional way by taking care of the fields and forests, the building of historic cities and villages of vernacular architecture, or in recent times, where landscaping has highlighted certain perspectives, Urban rehabilitation reinterprets the built patrimony and the roads invade everything. As originally indicated by C. Sauer, the landscape is cultural or is not landscape [17, 18]. For tourism, especially that which places slow mobility at the centre of the experience, the landscape is one of the main attractions of the visit. "The tourist gaze" in the centre [19]. The gaze of a tourist who travels a historical itinerary full of monuments as central axis of the experience. We look at everything, from the intermediate scale that the landscape requires and from more concrete points of view such as those generated by an urban scene. Even more tangible experiences, such as gastronomy or the purchase of handicraft, are mediated by the evocation of productive agrarian landscapes or images of people making objects. The landscape envelops the traveller, the notion of natural route and the memory of the journey. All the digital elements of reproduction of this experience proliferate as a result of it, but also as attractive images for those who want to visit the routes.

3   The Necessary Digital Update of the Camino de Santiago

In recent years, the Camino de Santiago has undergone a process of continuous growth until the crisis caused by the COVID-19 pandemic. As can be seen in Fig. 1, the Way of Saint James was pilgrim in the second half of the 20th century by just a few dozen people annually, who were encouraged when the pilgrimage was made in a jubilee year. The jubilee year in Santiago corresponds to when the feast of Santiago (July 25th) coincides on Sunday, which happens in repeated series with alternations every 5, 6 or 11 years. The 1993 Compostelan Holy Year was used by public administrations and pro-Camino associations to promote the Jacobean route, with major investment in new accommodation infrastructure and international promotion campaigns. The route had been declared the first European cultural route by the Council of Europe in 1987 and was included in the UNESCO World Heritage List in December 1993 [20–22].

Starting in 1993, the continued work on the Camino de Santiago was fruitful and every year more pilgrims were able to return to their homes and count the excellent personal sensations that the Camino had given them. The following Holy Years (1999, 2004 and 2010) signified the confirmation of the expectations created through the territorial and strategic planning of a product of cultural and religious tourism that was still expanding [23].

The second decade of the 21st century marks a new shift in the observed trend (Fig. 1), until then the Holy Years marked peaks of inflection. However, between 2011 and 2019 there was a continuous increase, year after year, of about 8%, taking into account that 2016 was a Compostelan Holy Year. This fact came to confirm that the Way had become a tourist-cultural route fully contemporary, beyond its original meaning strictly religious [24].
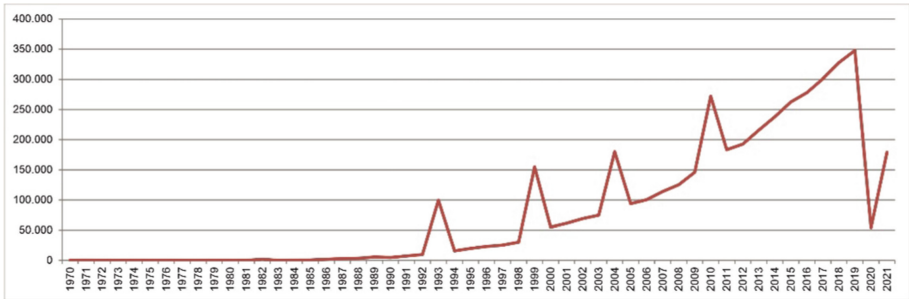

Fig. 1. Pilgrims to Santiago de Compostela 1970–2021 [25].

The year 2020 was the year of the pandemic crisis. In the months of April and May no person was registered on pilgrimage. In total in 2020, with the subsequent easing of the confinement measures, 54,144 people made a pilgrimage to Santiago, compared to 347,578 in 2019. The Camino de Santiago was to be reinvented anew, adapting to the new conditions. The different administrations and entities related to the Camino then bet, among other measures, to promote the digitalization and the use of the new technologies to continue developing the Camino de Santiago in the new post-COVID era.

3.1 The Role of the Spanish National Administration

In June 2020, the Archbishop of Santiago asked Pope Francis to extend the Jacobean year of 2021, due to the restrictions imposed by the pandemic on the pilgrimage. During the solemn opening of the Holy Door on 31 December 2020, the Apostolic Nuncio read the decree extending the Jubilee Year throughout 2022. Since 1122, for the first time in history, the Compostelan Holy Year will last 24 months.

The proposals to reactivate the Camino have come from different structures and entities. The above point is an example of how far the Christian Church has been involved in relaunching the Way. The Spanish government has also carried out different initiatives in this regard, among which the National Tourism Plan Xacobeo 2021–2022 should be highlighted. Announced in June 2021, it has a budget of 121 million euros, financed by the European funds Next Generation EU. Within the axes of action (Table 1), the fourth will allow the financing of five projects in the Camino de Santiago that will be framed within the Spanish Network of Intelligent Tourist Destinations (DTI), with concrete actions of development of digital solutions as apps or tourist guides, open technological platforms that provide information in real time, analysis and visualization tools of data, or installation of totems and interactive kiosks.

Similar calls at state level develop public funding tools for digitisation projects and new technologies, always under the Recovery, Transformation and Resilience Plan (PRTR), with four repeated objectives: green transition, digital transition, energy efficiency and improved competitiveness.

Table 1. Xacobeo 2021–2022 Tourism National Plan [26].

Axis	Descriptor	Mills €	%
1	Sustainable projects of maintenance and rehabilitation of the historical heritage in the Camino de Santiago	65,3	54%
2	National plan of tourism sustainability in Xacobeo destination	45	37%
3	Tourism Xacobeo product development program	5	4%
4	Smart tourist destinations program	5	4%
5	Xacobeo 2021–2022 international promotion program	1,1	1%

The Spanish DTI Network was created in 2013 and since then, different cities, towns and regions have adhered to this proposal put forward by the Secretariat of Tourism that proposes a future strategy based on governance, sustainability, accessibility, innovation and technology as backbone. Within this framework are included different programmes and calls that at the regional level are proposed as Cohesion Actions in Destination, to homogenize conditions and levels of quality of service in tourist districts, and at local level are specified in Sustainability Plans in Destination, where it is the different conditions of each municipality that structure the main objectives of the planning [27].

Among the digital solutions proposed at the state level, two projects already consolidated can be highlighted. The first of them is the app "Cno. de Santiago", developed by

the National Geographic Institute (IGN) together with the Spanish Federation of Associations of Friends of the Way, which launched its first version in October 2015. This application has the excellent cartographic bases of the IGN, permits the download on line and off line of the different stages of the Roads, associate updated meteorological information, data on the artistic heritage or services offered in each place. The second digital proposal was promoted by the Cathedral of Santiago in January 2021 and is the app "Pilgrim Digital Credential", a tool that aims through stamps with QR technology to complement the traditional credential paper, where the stamps that accredit the pilgrimage are placed. Little by little, the QR stamps for the application are spreading among the hostels, parishes and local associations, to improve this digital proposal.

3.2 Different Strategies in the Regional Level

When the government of Madrid sent the draft of the National Tourism Plan Xacobeo 2021–2022 to different entities and institutions, one of the recipients that raised more allegations was the government of the Galician autonomous administration, because within the political dialectic (belong to different parties) understood that the central government had not heeded any of its considerations; Galicia, where all the Ways converged, was underrepresented and some digitization projects collided with their own projects.

In fact, different regions of northern Spain have based part of their tourism promotion strategies on the Camino de Santiago [28] and despite the fact that there are several interadministrative bodies to coordinate policies on the Camino, it is common for there to be frequent lack of coordination in setting specific objectives, strategies or programmes. An example of this lack of coordination has to do with the apps about jacobean routes promoted by different autonomous communities, which only include information from their respective territories and when the person making the pilgrimage changes region must also change app, when entering a space with a different regional government.

The Camino de Santiago de Galicia App offers information on all Jacobean routes from the moment the pilgrim enters this region, such as the Portuguese Camino, which as it is originated in the neighbouring country is the reason for the main criticism of users of the IGN App who do not have any information about this international route. The App promoted by the Galician government has real-time information on events, offers, services, meteorology, or incidents on the routes. The augmented reality allows through the camera of the mobile to visualize points of interest and information about those places and has a log book where to store photos and texts that can be shared in social networks. On the other hand, "Camino Assist" is the application of the Camino de Santiago in Asturias that in addition to the above-mentioned functionalities incorporates an agreement with the insurance company Europe Assistance, which offers different types of insurance to the pilgrim.

Galicia approved in 2015 the Master and Strategic Plan of the Camino de Santiago (Table 2) that defined eight strategic lines and a total of 27 action plans associated to each line, with an estimated budget of 56.1 million euros [29]. Precisely the last of the action plans was defined as Impulse to Smart Camiño. A measure which, at the time of drafting the Strategic Plan, was last in place, and which, however, over the years and in the circumstances brought about by the pandemic, have occupied a pre-eminent

Table 2. Camino de Santiago 2015–2021 Master and Strategic Plan [29].

Line	Descriptor	Action plans
1	Coordination and administrative organization	6
2	Preservation and enhancement of the heritage values of the Camino	2
3	Conservation and maintenance of the Camino	2
4	Environmentally sustainable Camino	1
5	Strengthening of the city of Santiago as Goal of the Jacobean route	3
6	Enhancement of all pilgrimage routes to Santiago	2
7	Specialization and quality in the service of assistance to the pilgrim	6
8	Research, communication and dissemination of the Way and Jacobean culture	5

place in Galician regional policy on the Camino, with an investment of 10 million euros. From this concrete plan, the Galician region has driven the creation of the platform caminodesantiago.gal where people who want to pilgrimage can prepare their Jacobean experience with 360° panoramas, plan each day, connect with other pilgrims during the Camino and expose their experiences once the route is completed. In addition, under the Smart Camiño Plan, the provision of wifi in the public hostels of the Galician network, the installation of totems to charge the batteries of phones and tablets or the creation of the app for mobiles mentioned above has been generalized.

The Aragonese Tourism Strategy Plan 2021–2024 [30] promotes the digitisation of the sector to enhance communication before, during and after the trip, achieving an intensive and intelligent use of a digital technology ecosystem, including: the internet of things; augmented reality and virtual reality; artificial intelligence and robotization; geolocalisation and TIG; and big data, small data and open data.

The Euskadi region has also stood out for the digitisation strategy in the promotion and organisation of the Caminos de Santiago that run through its territory, introducing QR codes in all printed materials, promoting the GeoEuskadi App, with more detailed tracks than other applications and cybersecurity. Asturias, Castile and Leon, Navarre and Cantabria also promote the digitalisation of tourism in their regions with specific projects on the Caminos de Santiago.

3.3   Some Local Examples on Digitalization and Use of New Technologies Around the Camino

Finally, at the local level of the administration, a good number of municipalities that are crossed by the Camino de Santiago have carried out in recent years actions for the digitization of the tourism sector and the use of new technologies. These are cities and small tourist localities that have chosen to be included in the Spanish Network of Smart Tourist Destinations, created in 2013, which include, for example: Jaca, Logroño, Burgos, León, Ponferrada, Avilés, Gijón, Donostia, Vitoria, Noja, Santander, Badajoz, Salamanca, or Murcia.

As already mentioned, the Recovery, Transformation and Resilience Plan (PRTR) is the Spanish collective project that serves as an operational framework to mitigate the impact of the health crisis and adapt to the new post-pandemic scenario in which tourist demand has changed. Under this framework programme, Spain will obtain up to €140 billion from the Next Generation EU Funds and one of the four cross-cutting axes on which it is based is the digital transition. According to this PRTR, the digital transition is the bridge between innovation, productivity and sustainability, as well as being a backbone of territorial and social cohesion. The Strategy for Tourism Sustainability in Destinations [27], within the PRTR, was presented in July 2021 by the Ministry of Tourism, with an estimated budget of 1,904 million euros for the period 2021–2023.

Within this initiative, axis 3 sets out the actions that can be financed in the field of the digital transition of the tourism model, grouped under five headings: communication and access of resources and services to the destination tourist; management of the impact of tourism on the destination; development of destination tourism intelligence platforms and systems; destination tourism companies and providers; and public governance and their access to technology.

The management instrument for these measures is the Territorial Plan for Tourism Sustainability in Destination, which is configured as a mechanism for cooperative action between the national, regional, local and private sectors. Between ordinary and extraordinary calls will be approved in the next few years several dozens of territorial plans of this type, which will facilitate the progressive digitalization of the tourism sector in Spain. In the first regular call, in December 2020, 25 plans were approved and in the second, in July 2021, there were 23. In the first extraordinary, with Next Generation EU Funds, in December 2021, more than 300 proposals have been submitted.

4   Final Remarks

The digitalisation of the Camino de Santiago is a process that began about a decade ago, through pioneering projects and the personal application of new technologies to all our daily experiences. This digitalisation has accelerated as a result of the restrictions imposed by the COVID-19 pandemic, which has made it necessary to maintain security distances, to have real-time information or to carry out more procedures and actions in digital format.

The cultural routes, such as the Caminos de Santiago, are a healthy, sustainable, environmentally responsible, social-friendly and territorial cohesion-generating type of tourism, which can increase its socioeconomic impact in the coming years with its definitive digital transition. The channelling of public investment towards this objective should be seen as a positive attempt to transform the tourism model, a step forward in line with the changes suggested by the scientific and professional community of tourism.

The Spanish strategy of tourism sustainability in destination is a comprehensive, structured and ambitious initiative. The allocation of different instruments at each administrative level should seek to remedy the errors of previous planning calls, where political interests and political dialectics were colliding according to administrative territorial boundaries. If the major objectives set out in the PRTR are to overcome traditional inertia and translate into concrete action on all fronts in the coming years, the expectations of

recovery of the Camino de Santiago as a resource fort the enhancement and conservation of cultural heritage will be unquestionable.

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