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Connecting fishing and tourism practices using digital tools: a case study of Marsaxlokk, Malta

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Abstract

Coastal and maritime cultural heritage (CMCH), such as fishing-related activities, seafood and historical buildings along the seafront, is important for connecting and understanding the identity of communities and places linked to the sea. At the same time, CMCH is a key resource for developing tourism in coastal destinations. In tourism development, CMCH is often used and transformed for the benefit of the visitor experience rather than the well-being of the community. Moreover, fishing and tourism practices involved in tourists' experiences are becoming less integrated in the local community. In this paper, we explore the opportunities that digital tools provide for including fishing communities in the provision of meaning-ful experiences for tourists. We ask how digital tools can be used to connect fishing and tourism practices. The study is set in Marsaxlokk, a fishing village in the south-east of Malta. An action-research approach is applied to study the use of the storytelling platform izi.TRAVEL as a participatory tool that enables representatives of the fishing community to cocreate how a fishing community can be become more connected to tourism activities and development and discuss the usefulness of the social practices lens to unfold tourism and cultural heritage dynamics. We conclude that digital tools hold both opportunities to raise awareness toward inclusive and sustainable tourism and cultural heritage conservation as well as challenges related to management and digital competences.

Keywords Coastal community · Tourism · Digital platform · Social practice theory · Malta · Cultural heritage

Introduction

Across the world, fishing communities are exposed to different global pressures, such as climate change, coastal tourism development, energy and resource extraction and fisheries transformations. These developments have a considerable impact on the local environmental, sociocultural and economic resources on which coastal communities rely. Tourism, in particular, is highly dependent on local resources, for example food, water, energy, as well as natural and cultural landscapes and sites (Sisneros-Kidd, et al. 2019; Kongbuamai, et al. 2020; Khan, et al. 2020).

Coastal and maritime cultural heritage (CMCH) is key for coastal communities to sustain their livelihoods in traditional sectors such as fishing and to potentially develop tourism. CMCH is defined as 'a set of tangibles and intangibles linked to human activities and interactions taking place within coastal and marine (geographical or cultural) areas in the past, the present and imagined futures' (Ounanian et al. 2021: 2). Fishing, and small-scale fishing in particular, is a key example of CMCH intrinsically linking people to specific equipment, materials, places, skills, roles, traditions, songs or stories, which stem from the past, but are lived (and changed) in the present and the future (Ounanian et al. 2021).

Cultural heritage in general, and CMCH in particular, is a significant source of attraction in many coastal tourism destinations. Visitors are attracted to regions that hold unique cultural heritage (Pérez Guilarte and Lois González 2018; Lak et al 2020), while private entrepreneurs and government officials recognise its commercial value, its potential for economic development and its value as a source of pride and solidarity in communities in need of protection (Chen and Chen 2010; Katelieva et al 2020; Timothy 2021). The United Nations World Tourism Organization (UNWTO) has recently

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stated that tourism can both serve as a promoter of heritage conservation as well as have negative impacts on cultural heritage if poorly managed (UNWTO 2018). This dual relation between tourism and cultural heritage has long been recognised in the academic literature (see also Ashworth 2000; Ferreira da Silva et al. 2022; Garrod and Fyall 2000).

On the one hand, authors have warned of the implications of cultural heritage being absorbed or commodified by mass tourism (Brooks 2001; Coccossis 2009; Vecco and Caust 2019). Large numbers of visitors commonly result in deterioration of the social fabric of heritage sites (Comer et al. 2012; Thuestad et al. 2015; Vecco and Caust 2019). Tourism has also been criticised for transforming collective cultural heritage into commodities for development and commercialisation by private enterprises (Berg 2017; Halewood and Hannam 2001; Kim and Ellis 2015), taking it out of the hands of local communities. For example, tourism contributes to rising real estate prices and processes of gentrification, leading to the loss of identity (Khakzad and Griffith 2016; Ounanian 2019). Cultural heritage, when commodified for tourism, is often based on stereotypes of what is considered or desired to be authentic (Devine 2017). For example, rural food products commercially packaged for lifestyle consumption may put culinary heritage at risk (Gyimóthy and Mykletun 2009), while cultural performances are adapted to meet the tourist gaze (Moosa 2016; Su 2018; Urry 1990). Such developments are worrisome as cultural heritage has been claimed to be non-renewable and irreplaceable (Haugen and Mattsson 2011).

On the other hand, when managed carefully, tourism has the potential to raise the value of tangible and intangible cultural heritage, and thereby strengthen local identities and traditions and stimulate the conservation of local products, festivals or culinary traditions (Brooks 2001; Everett & Aitchison 2008). There is a growing interest in intangible and non-commodified forms of cultural heritage tourism, for example with regard to daily lived experiences, as well as accurate and diverse representations of the past (Timothy 2018). Culturally motivated tourists place value on heritage experiences that are considered to be more authentic and original (Chhabra, et al 2003; Domínguez-Quintero et al. 2020; Pafi et al. 2020; Ramkissoon and Uysal 2014; Xie et al. 2020). Heritage tourism is regarded as a strategy in rural regional development, which can help to stimulate declining regional economies, by protecting existing jobs, creating new employment opportunities (Boyne et al. 2003) and by putting local communities in control of tourism activities based on their cultural resources. Tourism can thereby help to diversify local economies, also in coastal regions, and stimulate the development of alternative livelihood opportunities through innovative synergies between traditional sectors, such as fisheries and tourism (Henderson 2009; Ukaegbu et al 2020).

However, whether CMCH-based tourism results in a growing divide or establishes productive and sustainable connections between the tourism sector and local fishing communities and their coastal heritage is not clear. Heritage tourism is a double-edged sword not handled easily, yet new ways of forging connections are emerging. Innovations are particularly spurred by online platforms, such as the numerous digital tools for tourists to share and rate their experiences (Pop et al. 2022; Navío-Marco et al 2018). This trend aligns with the overall rise of tools facilitating exchange, deliberation and action, which gained central stage in the socalled age of participation (Roberts 2004). These tools could be seen as instruments for people who are rather voiceless to become active and influential players (Robertson and Simonsen 2012; Chambers 2002). However, digital platforms and instruments have also been criticised for benefiting particular actors, and amplifying existing inequalities (Palacin et al 2020; Kloppenburg et al 2022).

This study looks into the ways in which a specific digital tool, i.e. izi.TRAVEL, enabled a fishing community in Malta to connect their fishing-related artefacts, knowledge and practices with tourism. Izi.TRAVEL, a storytelling digital platform widely used for sharing audio tours, was deemed promising to make local voices heard in the heritage tourism setting of Marsaxlokk, Malta. Following an actionresearch approach, the izi.TRAVEL storytelling platform was selected, developed and put in practice, as an instrument to co-create and share content with visitors.

Action research is research of and into practice, by and for practitioners, with an involvement of all actors during the research process and every stage of the research (Kemmis and McTaggert 1988; Selener 1992). In action research, researchers typically prepare, implement and analyse an intervention in a real-life setting with the aim to reflect and learn with participants. Action research is participatory in nature and can be categorised as technical, practical or emancipatory, depending on the aims, the facilitator's role and the relationship between the facilitator and participants (Zuber-Skerritt 1992). This study aims to contribute to understanding how local fishing communities play a role in, and even take charge of, tourism development in their villages in order to benefit from tourist visitation based on local CMCH, and to prevent becoming side-lined by large, outside enterprises.

In the following section, we will introduce the social practices lens to help us understand connections between distinct social practices, such as fishing and tourism practices. Section Boat tours in Marsaxlokk will briefly introduce the research setting: the case of boat touring in Marsaxlokk, Malta. Afterwards, we will lay out the methodology, based on an action-research design, which has led to support local community members in selecting and developing a participatory tool for connecting fishing and tourism. The analysis of this intervention will be presented in the results section, followed by a discussion and a conclusion.

Fishing and tourism: a practice-based approach

This study builds upon social practice theory to analyse how fishing and tourism practices can be connected. Social practice theories have recently gained attention in tourism studies as a way to understand the role of human and nonhuman components as part of routinized and recursive interactions, as well as to obtain a better comprehension of how certain activities such as boating and nature experiences are performed and materially and symbolically shaped (Bachmann-Vargas et al. 2021; James et al. 2019; Lamers and Pashkevich 2018; Lamers et al. 2017; Souza Bispo 2016). Along similar lines, we are interested in how meaningful tourist experiences of CMCH can be co-produced by the local community.

In this article, we focus on the work of Shove et al. (2012) in which practices are seen as being constituted of three elements that are integrated and transformed in action. Elements can be materials (e.g. things, technologies and tangible physical entities), competences (e.g. skills, know-how, techniques and practical understandings) and meanings (e.g. symbolic meanings, ideas and aspirations). According to Shove et al. (2012, pp. 14–15) practices emerge, persist, shift and disappear when connections between elements of these three types are made, sustained or broken'. Practices are made up of the interlinkages between these three elements, and can be analysed at each of the three elements and their interlinkages. These concepts can be aligned with the definition of CMCH, as it explicitly allows us to combine the more tangible material heritage elements, such as fishing crafts or boats, with the more intangible meanings and competences, such as the identity or know-how (see Fig. 1). In this study, it provides a lens to analyse the connections between fishing and tourism practices in time and place.

Social practice authors have claimed that social phenomena, such as activities and organisations, are made up of bundles of practices (Schatzki 2005; Shove et al. 2012). From a social practice perspective, practices can be connected through shared elements, or by bringing them together by means of other practices (Lamers and Van der Duim 2016; Zwart et al. 2021). Fisheries, for example, refer to multiple practices, such as fishing, boating, netting and renovating boats. Looking at a bundle of practices enables insights into the role that practices—and the various connections between them—play in how individual or bundles of practices are shaped and develop over time.

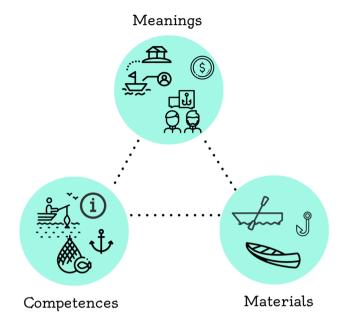
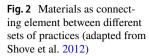


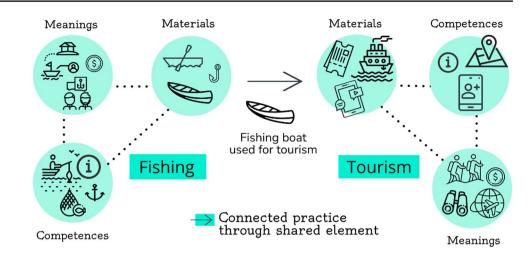
Fig.1 Elements composing the social practice of fishing (adapted from Shove et al. 2012)

Specifically, social practice theories provide insight in the attractions and tensions that may exist between various practices (such as boating which can be a practice within both fisheries and tourism) and the consequences that this may have.

Individual practices may affect and be affected by other practices, as they hang together in more or less complicated bundles of practices in which practices co-exist with, facilitate or compete with each other for time, attention or resources. The connections between the practices in these bundles can be looser or tighter. Generally, through a consistent reproduction of these practices, connections become tighter, and practices within these bundles become more mutually dependent (Lamers and Van der Duim 2016; Schatzki 2005; Shove et al. 2012). Moreover, the practices within these bundles do not merely co-exist with each other. Instead, they may be mutually dependent and either inhibit or facilitate each other (Schatzki 2005; Lamers and Van der Duim 2016).

Following Shove et al. (2012), we state that the process of connecting different practices occurs when particular elements of a practice are shared between different sets of practices (Fig. 2). For example, in the cases of photographing fishing boats, or conducting boat tours, the material element of the fishing boat is shared between two sets of practices of fishing and tourism. Such sharing of one or more practice elements will have implications for the other elements and create new dynamics in the meanings, competences and materials included in the original sets of practices (Lamers and Van der Duim 2016).





In this study, practice theory helps to explain how fishery and tourism activities performed daily around popular CMCH destinations over time become connected and start influencing each other. The increasingly intricate relations between the fishing and tourism practices can lead to various responses of transformation, commodification or heritagisation. We will focus our analysis on the development of boat tour practices in Marsaxlokk, Malta, as a unit of analysis to illustrate the interlinkages between fishing and tourism practices. More specifically, we analyse how this process of connecting practices can be deliberately guided and stimulated with the use of digital tools, in the form of a participatory process to co-produce community-based CMCH experiences.

Boat tours in Marsaxlokk

This study focuses on the case of local boat tours in the fishing village and municipality of Marsaxlokk, located in the south-east of Malta (Fig. 3). The local boat tours

are selected as a case study due to their recent introduction to the village as a tourist experience in which tourism and fishing community practices are directly intersected. Moreover, it offers the possibility to investigate tensions within two sets of practices (i.e. those related to tourism and fishing), which share elements of a common practice, and it facilitates the implementation and reflection of the digital storytelling platform as part of the project intervention. Marsaxlokk has many historical and natural heritage sites, which attract many visitors each year. For the last two decades, Marsaxlokk has experienced an impressive influx of international tourists due to a promotional campaign from the tourism authority to brand Marsaxlokk as the only operational fishing village left in Malta (Losco 2015). In 2019, 1,226,992 visitors came to Marsaxlokk, which represents 45% of the total number of international tourists visiting Malta (Live News Malta 2020). As a tourism destination, Marsaxlokk has been portrayed as the place to find 'real Maltese fishermen' on their colourful Luzzi boats, to visit the Sunday fish market and to eat fresh fish in one of the many fish restaurants.



Fig. 3 Marsaxlokk area in the south-east of Malta (right) and overview of Marsaxlokk (left). (Source: Wiki/first author, 2020) As part of the transformation of Marsaxlokk to a tourism destination, the fishing community started offering boat tours with traditional Maltese vessels. Local boat tours emerged as means of diversification for fishing activities and expanded the tourist experiences offered.

The tours are characterized by a high dependency on favourable weather and sea conditions, as well as seasonality, with the summer months (June to August) forming the peak season. Boat operators require a license to work and a fixed location along the waterfront area to offer their services directly to the tourists. At the same time, this location serves as a waiting and boarding area for the tourists. Boat tours costs between 5 to 15 EUR p/p, and can take between 30 and 90 min, depending on the trip. The standard boat tours on offer include exploring Marsaxlokk Harbour and visiting the natural pools around the Delimara Peninsula (Fig. 4). Before the intervention, e.g. the co-creation of audio tours as part of this study, very little information and interpretation was available for the passengers. Next to defined trips, tourists can also make special requests and operators are flexible to provide customized services, such as water taxi services to and from natural pool areas, or demand special fees in case of larger groups.

Methodology

This research follows a qualitative methodology, using a single case study design (Yin, 2009). The case of boat tours in Marsaxlokk allows for an exploration of the ways in which fisheries and tourism can become more connected, by analysing the boat tours as local practices and by co-creating the boat tours by proposing the introduction of a digital tool. In this co-creation process, we followed the principles of action research to deal with real-world problems in collaboration with the actors involved in the matter (Trondsen and Sandaunet 2009). Action research supports the study of action through action, so in our case going beyond identifying either disconnections or connections between fisheries and tourism, but also initiating and facilitating an intervention aimed at connecting these social practices. Morrison and Lilford (2001) define five characteristics for action research. These characteristics describe that an action-research project has to have (1) flexible planning, meaning that the outset is not determined from the beginning but is continuously reviewed and changing; (2) an iterative cycle between reflection and action; (3) subjective meaning of those implicated in the issue at stake; (4) simultaneous improvement within the process, which allows the researcher to adjust during the research process to solve or redirect certain challenges; and (5) unique context which takes into account the social particularities of the case study. In action research, the role of the researcher is defined as an implementer of the program



Fig. 4 Boat trip advertising different hot spots and trips around Marsaxlokk's bay and the Delimara Peninsula. (Source: first author, 2020)

to remark the intentions of the program and the circulation of knowledge within the local context (Morrison and Lilford 2001). Moreover, the researcher is at the start of the reflection process and opens the possibilities related to the use of action research for a particular study.

An initial field visit took place in May 2018 to study the dynamics in place and map out actors and interest groups to set up the workshops for the project. Participants were selected based on their interest or role in preserving and managing CMCH in Malta and Marsaxlokk. In the overall study, a total of 34 representatives of different stakeholder groups were involved (see Table 1). The researchers acted as coordinators and moderators in several focus groups and workshops of the project between November 2019 and October 2021.

The process had three phases. In the first phase, we organised a workshop to explore the current challenges and opportunities to manage and protect CMCH in Malta and define and select potential opportunities (workshop 1). The workshop facilitated an open brainstorm about what actions or tools would be promising. The researchers brought in ideas about digital storytelling platforms to co-create meaningful content around CMCH elements in

Table 1 Stakeholder involvement	vement					
Intervention phase	Workshop 1	Workshop 2	Co-production sessions: design	Co-production sessions: implementation	Workshop 3	Final interviews
Timeline	November 2019	March 2020	April 2020 - April 2021	August 2021	October 2021	October 2021
Aim	Discuss the challenges & Implementation of the opportunities to determeans of actions and mine means of action start of the co-production and road map to use and tion process with the preserve CMCH.	Implementation of the means of actions and start of the co-produc- tion process with the selected intervention.	Six online meetings to identify relevant CMCH and design the digital audio-guides.	Introduction of the digital audio-guides to end users and application in place. Feedback received from end users.	Evaluation and reflection of the interventions adopted in the project. Hand-over of the out- comes.	Introduction of the digital Evaluation and reflection Individual semi-structured audio-guides to end of the interventions interviews to reflect on users and application adopted in the project. the intervention process in place. Feedback Hand-over of the out- and impact. received from end comes.
Type of stakeholder involved*	/ed*					
Policy-makers (national) 6	9	4	1		3	1
Policy-makers (local)	2	2	1		1	1
Researchers with an interest in CMCH	4	6	3	1	5	2
ENGO with an interest in CMCH	2	1	1	ı	1	
Local community repre- sentatives	2	2	1	1	ı	1
Private sector repre- sentatives	5	3	3	10	3	3

*Number of stakeholders involved in each step of the intervention

Marsaxlokk and developed digital audio guides. Among different actions proposed, the digital storytelling platform izi.TRAVEL was selected and used, to develop community-based cultural tours (see also Bonacini et al 2018). These tours were implemented in the waterfront area of Marsaxlokk as a walking tour, as well as in the context of the boat tours. The izi.TRAVEL platform was chosen given its user-friendly interface and design, which allowed members of the local community to use their knowledge to map out CMCH elements around the area of Marsaxlokk, to write and narrate texts, to collect visual material and to design digital tours.

During the second phase, we took action upon the selected ideas (workshop 2, design and implementation sessions) together with a select group of participants. Field visits allowed the researchers to facilitate the process, to propose and discuss adjustments needed, to build in moments of reflection, as well as to observe the process as it unfolded. This process was challenged in March 2020 by COVID-19 limitations and we consequently switched to new ways for coordinating and communicating through formal and informal online communication. The final phase was a deliberate cessation by the researchers as facilitators, to hand over the project (workshop 3) to a local and national stakeholder, including representatives of the fishing community, the municipality of Marsaxlokk, the fisheries department, the tourism authority and cultural associations. Next to the final workshop, eight interviews were conducted in the following days in October 2021 to capture individual reflections from some of the key participants involved in the project.

Fishing and tourism in Marsaxlokk: into the same boat?

Based on the conceptualisation of social practices, understood via its interlinked elements of materials, meanings and competences, we will first show how two different sets of practices, fishing and tourism, have an intrinsic connection and influence one another, but are disconnected at the same time. Second, we demonstrate how the intervention of using the izi.TRAVEL platform worked as an attempt to connect the fishing and tourism practices through the connecting practice of boating, or more specifically, performance of boat tours by local operators, who are also fishers.

(Dis)connected elements in the boat tours

Drawn from observations and interactions with several boat operators, boat tours as a practice present different features that interlink elements of fishing and tourism practices. Moreover, the workshops and interventions with stakeholders and interest groups made clear the value and the role of traditional fishing boats as CMCH in Malta.

Before the intervention took place, boat touring by local fishers had already been introduced as a routinised practice. Each boat trip was typically managed by one skipper who was mostly occupied with navigating the boat from the waterfront to the natural pools and back, or around the harbour. When passengers had boarded, the skipper handed over the life-vests and reminded the passengers to keep it on and to remain seated while at sea. During the trip, the interaction between the skipper and the tourists remained limited, unless the skipper would be asked some questions about the trip or the area. There was no tour guide on board and the sound of the engine did not allow for people to have much of a conversation. Upon arrival, particularly on the trip to the natural pools, the passengers were offered the option to swim the last meters or moor at an improvised pier, next to the pools. At this point, the skipper would ask if anyone would be waiting near the natural pier had booked a trip back to the waterfront. Thus, the trip back became a second water-taxi service and a profitable trip for the boat operators, as well as a practical way for tourists to return to the village.

For these boat tours, vessels are to be considered as a key material element of the practice. The boats can be recognised by their characteristic colourful pattern and the painted eyes in the prow of the ship. They were traditionally made of wood and the size and the shape slightly varies depending on the type of boat-Luzzu, Freigatina, Ferilla and Kajjik to mention some. Nowadays, the boats are mostly made of fiberglass, which provides a higher resistance to the sea conditions and lower maintenance costs. Since 2004, Maltese vessels are categorised as MFA for full-time professional fishing, MFB for part-time professional fishing or MFC for recreational fishing. MFD is for work boats in auxiliary for fishing purposes. Recreational fishing for tourism purposes on professional fishing vessels is not allowed in Malta. However, part-time professional fishing vessels or recreational vessels are allowed to offer water taxi services or taking tourists around the bay. As a result of this opportunity, many traditional boats from the small-scale fishing fleet have been adapted to be able to receive tourist on board, with more comfortable seats, shading structures, decorations, life-vests and other safety measures (see Fig. 5).

The waterfront area is another key material element, as it is the space where the boats, operators and tourists are located. Boat operators share the waterfront with other businesses, such as restaurants, hawkers and the market. At the same time, the waterfront area is a place for the community to socialise, walk and practice recreational fishing. Ultimately, more tourists spend their time walking around while admiring the fishermen at work or stopping at any of the restaurants to eat fish.

In this compressed and highly demanded space, each of the boat operators has an adjudicated fixed spot where they can **Fig. 5** Traditional Maltese boat for fishing purposes (left). A local boat operator working on a boat to be ready for the tourism season (right). (Source: first author, 2020)



promote their trips and sell tickets. Each of these places can be recognised by the combination of tables, umbrellas and different types of promotional materials. These materials are an important element to catch the tourists' eye and mostly provide information and photos of the tours, such as the fee, itineraries and key sites. As for the boat tours, the promotional materials also play an interesting role as they typically form the first points of interaction between the tourists and the boat operators.

The boat tours in Marsaxlokk commenced as an idea to diversify the uses of the traditional fishing boats for new economic activities. The boat operators, as producers of the, at that time, new practice, wanted to develop alternative livelihood. The boats and other material elements from fishing became an element in a different practice, part of a different business with a new commercial value. The boat operators learned new ways to perceive the waterfront and its surroundings, whereby certain places are considered more favourable for the business due to a higher flow of tourists.

Considering the importance of the material and knowhow of the boat tours, the socio-cultural aspects linked to the fishing identity are an important source of meaning. Boat operators in general expressed that the boat tours were considered a new source of income which is related to their traditional activities. This could be observed in how the operators proudly renovate their vessels and how they interacted enthusiastically with the tourists to show promotional photos of what can be expected during a boat trip. In that perspective, the seascape and other sites of interests around the activity have become more important for boat operators as they served to promote their business and their place.

When it comes to competences, we look at the skills and know-how to reproduce boat tour practices. Navigating remains one of the most important skills that requires expertise and experience at sea. Skippers and fishermen involved in the activity understand the favourable weather and sea conditions, and the geography of the area. At the same time, fishermen have skills for renovating and adapting the boat to accommodate tourists. Navigation and boat maintenance skill in the context of Marsaxlokk are mostly linked to the fishing culture of the community and they have been passed on through generations. Yet, the development of the boat tours as a new economic activity involved additional skills and knowledge. Tourism practices in the production of the boat tours can be attributed to the commercialisation of the experience, the promotion and customer-services practices, such as guiding and information provision. Including such skills should not be taken for granted and may require adding personnel or crew to the boat tour business capable of storytelling, promoting or other customer-service, market and commercial skills.

Besides analysing the different elements of the practice for the boat tours in Marsaxlokk, it is important as well to zoom out of practices to understand the factors that drive and shape such practices (Lamers et al. 2017). The operators were in an on-going process of organising and understanding how to work. The level of standardisation and institutionalisation had been limited; at this stage, there were no formalised agreements between boat operators on how to work together, as well as no structures (e.g., association of boat operators) that could contribute to information provision, or training possibilities in tourism-related skills. This lack of organisation could potentially affect the success of the local fishing community involved in the boat tours as competitive advantage may be lost in comparison with external operators who show more advanced tourism skills. As a result, the local boat tours were at risk of becoming disconnected from the fishing community and their practices, and move towards the tourism domain.

The analysis shows that there are several challenges associated with the growing disconnection between the boat tours and the fishing practices. First, fishery-related CMCH sites and practices at the waterfront area would change in meaning and form if performed solely for touristic purposes. New elements would be introduced to these practices, which would slowly replace materials, competences and meanings that are important for the authenticity and identity of the place. For example, normal passenger boats, painted in the traditional style in terms of colours and symbols, were starting to replace traditionally maintained fishing boats, personnel skilled in tourism competences from outside might complement or even replace members from the fishing community, and local stories and meaning associated with fishing heritage might dissolve from the boat tours altogether. In short, the absorption of certain elements of fishing practices in the boat tours practice would thereby contribute to the commodification of CMCH and fail to enrich and rejuvenate Marsaxlokk's fishing past and present.

Connecting practices

Against that backdrop, our study included an intervention, which was aimed and designed to strengthen the position of the fishing community and their heritage in the boat tours. Through a digital storytelling application, boat passengers (and other visitors) were provided the possibility to admire Marsaxlokk's cultural and natural heritage while listening to stories and interpretation from members of the local fishing community. We started out our intervention by bringing together different stakeholders with an interest in CMCH in Marsaxlokk, and Malta in general (workshop 1 as shown in Table 1). The first discussions among the participants focused on the need to connect visitors with the fishing heritage and identity of the community, and to strengthen the connections with the tourism industry. There was a consensus that Marsaxlokk is inundated with tourists that on many occasions wander aimlessly around the waterfront without many options but taking photos or eating (often imported or farmed) fish in one of the many restaurants.

It was also commonly acknowledged that Marsaxlokk has a strong identity as a fishing village with many heritage sites, but many stories and cultural aspects remain invisible. To connect the fishing community and their tangible and intangible heritage with the international and domestic visitors, the local participants decided to work with digital applications. The large proportion of visitors using smart phones and electronic devices, and the opportunities for locals to be actively involved and to be heard through an innovative platform, were voiced as important reasons. The participants and researchers selected the digital storytelling platform, izi.TRAVEL, to co-create local user generated content and produce audio tours. The izi.TRAVEL platform is open and free and its design allows users to record their voices and share their knowledge and images, formatted in the form of an audio guided tour. It provides an opportunity to digitally capture local stories, as well as to develop tours that can be linked to cultural and heritage tourism experiences. It also provides a platform for participation and learning about the design of heritage tourism experiences. As a result, the local community group, facilitated by the authors, created a city walking tour, a nature heritage trail, as well as three boat tours, with 77 CMCH elements mapped out and narrated in English by members of the local fishing community (see Fig. 6).

Once the heritage sites and tours were assembled and explained, leaflets and brochures were designed and distributed amongst boat tour operators and other local sites, to be promoted during the summer of 2021. Every boat operator received materials together with an explanatory introduction. Most of them were in favour of using the platform and felt positive about it. The implementation of the QR codes in the promotional materials were generally accepted and considered convenient for visitors to access the content of the tours. At the same time, the intervention setting allowed for boat operators to come up with feedback on the use and design of the materials and be more efficient when promoting them.

According to one participant, the introduction of the promotional materials and the possibility to offer it to the tourists opened up new unintended practices related to the boat tours. When it was not too busy, some boat operators took their time to learn from the digital audio tours to get more acquainted with the stories of their surroundings, and practising English.

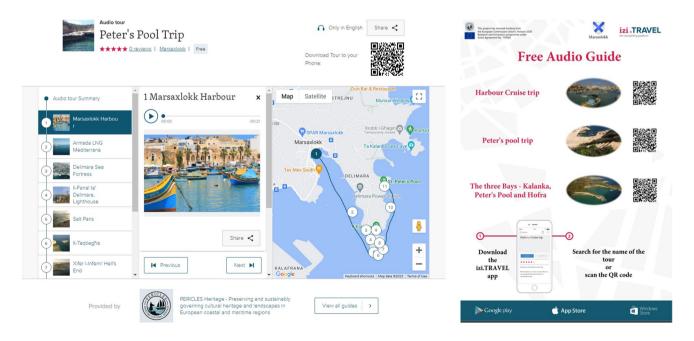


Fig. 6 Example of one of the co-produced digital audio guides for one of the boat trips (left) and example of a brochure to promote the audio tours of the boat operators (right)

These boat operators also started narrating the stories and providing interpretation live on board. It also triggered some boat operators to show additional heritage sites and points of interest while boating, even without using the digital platform. The storytelling application seems to have stimulated more interaction between boat operators and tourists, which not only provides a better experience for the tourists but has also been economically rewarding for the boat operators in terms of tips.

Although most boat operators promote the application once tourists are on board, one of them explicitly stated that during rush hours their main focus would be on selling tickets, and not on promoting the application. Some boat operators acknowledged that having someone with more commercial skills to promote the tours would help to reach a broader audience. In that sense, the new elements introduced in the boat tour practice through the storytelling application (brochure, engagement in actual promotion with tourists and sharing new generated knowledge) are reproduced in accordance with the needs and priorities of the operators in certain socio-spatial and temporal contexts (low/high season, rush hours, weekdays or Sunday fish market).

From a social practice perspective, locally selected meanings have been made available creating new heritage tourism experiences and reaching a broader audience, including both Maltese visitors and international tourists, through their smartphones. The platform enabled local voices to be present and heard, by exposing visitors to stories from the local fishing community. By bringing in new materials (tours, smart phones, promotion leaflets) in heritage tourism practices and experiences, fishing and tourism practices have become more closely connected, while at the same time providing a structure in which meanings and competences could be exchanged (see Fig. 7). In other words, the digital platform provided practice elements (i.e. materials, meanings,

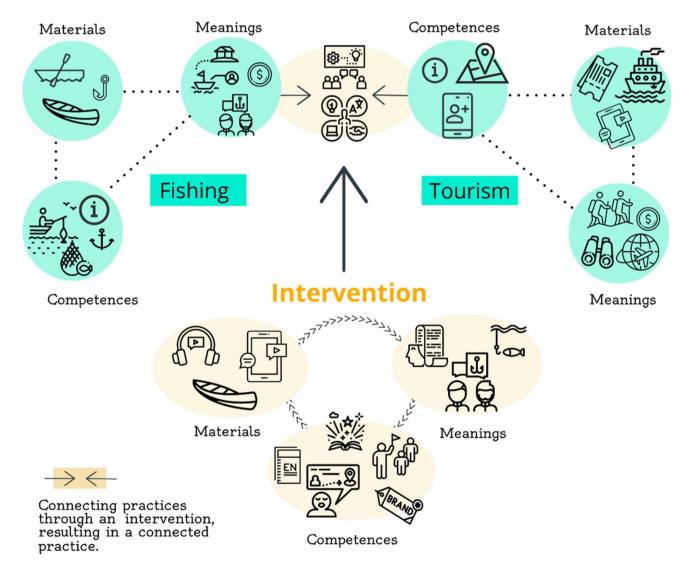


Fig. 7 Boat tours aided with digital storytelling as a new connecting practice between fishing and tourism

competences), which enabled connections between fishing and tourism practices.

The design of the digital boat tours and the related promotion materials empowered the fishing community to step into the tourism domain, on their own initiative and terms. The intervention helped to raise awareness in terms of how to use local knowledge for enhancing boat tours and turn a water taxi service into a tourism experience. Moreover, the use of digital platforms and the learning process enabled through the workshop stimulated local community members to get more familiar with specific tourism-related practices, such as branding, storytelling and tour-guiding.

Despite the potential benefits of using a digital tool to connect fishing culture and tourism practices and provide opportunities for cultural tourism experiences, the intervention has also shown negative aspects that need to be mentioned. Not all local stories and sites were considered suitable for promotion and publication through a digital platform, as some were considered private or could expose certain members of the community. Also, while our intervention allowed participants to have space to co-create and work together, and there was overall a collaborative, friendly and consensus-seeking atmosphere, the process was not without dispute. There were disagreements regarding the selection and description of certain heritage sites that were mapped during the process, particularly between local experts in the history of the village, the municipality experts and researchers involved in cultural heritage. Content had to be negotiated to be as inclusive as possible with everyone's input, while at the same time balancing with the integrity and veracity of the story. Also, concerns about making sites and local stories visible were discussed, as visibility may not always be beneficial for preservation purposes, as it potentially leads to increased use and wear and tear from visitation.

Discussion

The case of the boat tours in Marsaxlokk presented here illustrates how fishing, tourism and cultural heritage are not just connected, but are continuously connecting. Cultural heritage is well integrated in the fishing community and considered part of the identity of the place, and provides opportunities to diversify the local economy from fishing to tourism activities (Ukaegbu et al. 2020; Roscher et al. 2022). Tourism is connected to CMCH, most clearly presented by the traditional colourful Maltese boats (*Luzzi*) which remain a central element of the village's tourist gaze (Urry 1990). The boat trips, as had been developed by fishers, connected the fishing community to tourism practices, creating new ways for locals to interact with tourists, and providing the community an

opportunity to remain connected with their fishing identity (Brooks 2001; Everett and Aitchison 2008). By the materiality of the boat, the meaning of its traditional function as fishing vessel represented by its colourful patterns, and competences of navigating the boat in the bay, fishing became connected to tourism practices. At the same time, the continued use of materials and meanings, such as the colours painted on the boats, shows that there are desirable stereotypes to maintain as heritage identity in order to attract visitors (Devine 2017). Some entrepreneurs even make use of the distinctive heritage to transform normal boats into 'traditional' looking boats. While the shape of the boat differs from the traditional Luzzi, the colourful patterns are distinct enough to create the feel of a traditional Maltese boat.

As argued elsewhere (Silva et al. 2022), this commodification process in Marsaxlokk is an example of the dual relation between tourism and CMCH, where tourism provides both a risk and an opportunity for the preservation of cultural heritage. This study uses social practice theory (Shove et al. 2012) as lens for unpacking processes of commodification (Berg 2017; Halewood and Hannam 2001; Kim and Ellis 2015) by analysing how fishing and tourism practices are connecting. Certain elements of practices (such as fishing boats) become shared between fishing and tourism, so connecting the practices. At the same time, emphasising colours while disregarding shape may lead to the domination of meanings important to tourism, leading to a disconnection of the original sets of practices (i.e. fisheries). Moreover, the boat trips highlighted how fishers lacked knowledge about local heritage or competences to make heritage values explicit, indicating a potential loss of meanings.

An intervention, as initiated in this study, was aimed to turn the tide and prevent losing meanings, by facilitating the process of connecting these practices. The intervention was designed to deliberately affect and change the practices of local boat operators, and has opened a way for them to connect with the tourists through CMCH. Through the izi. TRAVEL tool, (digital) content has been co-created and put into use, thereby introducing new elements in the boat tour practice. The tool introduced a material element that enabled the translation of knowledge of, and stories about, fishing heritage of the local community into a visitor experience, as well as enabled the exchange of meanings and competences amongst participants developing the audio tours. Not just visitors, but also local community members became more aware of the heritage sites and points of interest in the area. Also, izi.TRAVEL served as an educational platform to learn new competences. By co-creating and using the audio tours, boat operators expanded their skill set, by incorporating tourist skills (cf. Mertena et al. 2022), such as tour guiding, storytelling and creating better quality tourism experiences.

In selecting izi.TRAVEL as a tool for intervention, it was seen as attractive because it is an existing, open and free digital platform, with which users can start working on the content immediately. However, even with the technicalities in place, the use of digital tools, such as izi.TRAVEL, is not a linear process and demands time and coordination to get familiar with its interface and uses (Bonacini et al. 2018). In this case, the use of the digital tool remained a challenge for many boat operators and skippers due to the low association between the digital and the tangible, or what Maurer (2015)calls the digital divide in cultural tourism experiences. Also, it remains to be seen what the impact of the use of digital platforms on CMCH will be in Marsaxlokk on the long term. There is a risk that the material developed might become unused in the future due to the low association between the tangible and the digital. This might be even more apparent for some of the boat operators who acknowledged that the audio tours did not change the fact that they were still in need for someone with better outreach and marketing skills to promote the tours. Nevertheless, similar outcomes could not have been achieved by using non-digital approaches to co-create content and encourage participation. The digital character of the tool proved to be key in collaboration and co-creation since facilitators and participants could continue to collaborate remotely in a time of COVID-19 limitations.

In connecting fishing and tourism practices, the izi. TRAVEL tool has been introduced through an actionresearch approach. In carrying out the intervention, the researchers adapted to the needs of the project and participants involved, combining professional development in the fishing community to include digital audio guides in the boat tours, educational practice on how to use digital platforms to create and deliver stories, and understanding of the tourism and cultural heritage opportunities within the boat tours experience. Members of the local community have been in charge of the process, following a combined collaboration and co-operation style with ample time and opportunity for reflection on the sensitivities and implications of digital storytelling. However, in interventions like this, dominant actors or groups exist (Johnson et al 2021) and they can face resistance from those who become the final users, or those who felt left out of the co-creation process (Selener 1992), or those who do not agree with the intervention and want to promote digital-free tourism (Cai and McKenna 2021). Also, in our case the intervention relied on an external facilitator as an 'outside expert' (Zuber-Skerritt 1992) funded by a research project. This is not uncommon; the central role of the facilitator in moderating participatory processes and its influence in the implementation is emphasized more broadly in the literature (Morrison and Lilford 2001). Here, the role of the researcher as facilitator of the intervention enabled a connecting practice (see Lamers and Van der Duim 2016) that required coordination, negotiation and delivery of results amongst participants. However, it is important that facilitators do not take a dominant role and that locally rooted organisations take over the coordinating role to maintain and build on the output and lessons learned. In our case, workshop participation, co-coordination of tasks and joint communication were considered as part of the learning goals, explicitly formulated within the scope of the project. At a clearly defined moment, the project was handed over to local and national stakeholders. While it remains to be seen how the intervention and its effects will evolve, the positive responses during the initial phase of the intervention in which local stakeholders selected the tool, the positive energy in the co-creation phase of the content, and the interest from local and national stakeholders to take over the initiative, are promising in terms of use and sense of ownership.

Conclusions

The aim of this research was to understand how new cultural heritage-based experiences can be co-created through digital platforms from a social practice perspective. We followed an action-research approach by introducing and deploying izi.TRAVEL as an intervention and analysing how this tool enabled the fishing community of Marsaxlokk to participate in a co-creation process and how it contributes to connecting them to domestic and international visitors. Even though the data collection and the intervention development were challenged by COVID-19 limitations, it was still possible to proceed due to active online communication and the accessibility of the digital platform.

We conclude that digital platforms can serve as a tool to incentivise collaborative governance models for local communities in tourism destinations. It serves as means to connect fishing and tourism practices and to empower local fishing communities in this process, but there are certain challenges to be considered as well, particularly when it comes to digital competences, ownership and unintended consequences. For example, digital platforms can also contravene heritage preservation by overexposing local communities to massified tourism areas. A careful and reflexive approach is therefore warranted, whereby local communities are supported and challenges are addressed by policy-makers. The combination of practice theory and action research can make an important contribution to such reflexive transformations in tourism and cultural heritage.

Our study shows that a social practice perspective provides a useful approach to understand processes of rejuvenation or commodification of cultural heritage, by looking at how different elements from two sets of practices are connecting. Further research could focus on action-research interventions as a connecting practice within a participatory governance approach in the context of CMCH and tourism development, to better understand how such interventions affect local communities and sustainable tourism. Finally, a study on the consumers' side of the practice (e.g. visitors, tourists or users) would be of interest to understand the influence of such interventions on tourist practices, to evaluate possible changes towards a more sustainable and responsible travel behaviour.

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Data Availability Data underlying this study have been stored according to the institutional guidelines and regulations, and are available upon request from the authors.

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