How can technology be used to collate and disseminate local knowledge to enhance tourism in Kinsale?

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Abstract:

This project was carried out in Kinsale to see how we can enhance tourism there. By using both technology and local knowledge. This project was undertaken once it became evident that tourists in Kinsale were missing key pieces of information, alongside large gaps that were found in literature. Information was collected through interviews, placed on an interactive map and then feedback was collected regarding the positives and negatives of the map. This was done using a variety of tools and methods. Its main findings were that technology and local knowledge can be used through the form of an interactive map to enhance tourism in Kinsale. These findings could therefore be used by others to create artefacts such as the one in this project to enhance tourism in their own area. If not, this project will hopefully act as a framework for other projects such as these in both developed and developing countries.

Table of Contents

Introduction:

The title of this project and its research question is “How can technology be used to collate and disseminate local knowledge to enhance tourism in Kinsale?”. To answer this question a methodological approach will be taken. The first step surrounds assessing why a project like this even needs to be done. Well as a resident of Kinsale a problem was noticed surrounding tourists’ lack of information regarding many parts of Kinsale. There was then a question of how to address this? This is where this project came in. With the degree of Digital Humanities and IT before even researching it was known that technology would help be an answer to this. Why some may ask? The application of technology may not be as obvious for the traditional area of tourism, but the appetite for knowledge among travellers continues to grow. It is also seeing a massive adoption and use in many industries, areas of study and in human activity. It is even seeing wide use in the tourist sector with one Google Travel Study claiming 74% of travellers plan their trips on the internet. (Vidal, 2019). So, looking at how this can be used to enhance users experience is something that will hopefully be answered throughout this project.

Firstly we have to establish specific parts of greater research that have to be addressed. This will be done through the medium of a literature review and environmental scan. Throughout both a wide range of literature, projects and apps that related to the question were looked at. This was done through a variety of source such as google scholar, JSTOR and more. Literature was specifically looked into surrounding the use of local knowledge in the project and its feasibility, how to enhance the tourist experience in Kinsale, and the gaps that existed in literature that this project could fill. For the environmental scan there was much more learning from other projects and implementing these learnings.

To evaluate these concerns, we subsequently needed to determine our approach towards addressing them. This was done in the tools and methodologies section. The main influence on this section was personal experience. Many tools/processes from previous years college

were chosen. And researching online helped decide the rest. Research played a big role in the decision to use interviews and how to determine the success of the project which was through the use of a questionnaire. Personal experience played more into the decision to use some of the tools used such as WordPress. This is because all of these tools had been used in previous years of college for other projects, assignments and modules. Some tools were also decided upon after conversing with my second reader. More in depth reasons for all of this will be discussed in the section.

Next processes and methods will be discussed mainly around the building of the artefact and the website. As will be discussed below this process proved to be quite simple. This was mainly thanks to the tool that was chosen. The placing of the artefact on the website and its challenged will then be explained. This was to allow a questionnaire to be carried out to determine the results of the project.

Following on from this, the creation of the website and the artefact will be discussed. Decisions regarding the theme of the website, the colours and the layout decisions will be outlined and justified. Not only for the website but also decisions regarding categories, map backgrounds and icon design will be discussed in this section. Lastly we will also discuss the key issues behind integrating the map seamlessly onto the website and how this was broached using CSS.

In the last two sections the project, artefact and its results will be analysed. This will be done in the form of a critical analysis and a results analysis. The tools and methods used will also be analysed. Hopefully allowing the exploration of their myriad of advantages and disadvantages. Analysis will also be carried out on the results collected from respondents. This will be done with the goal in mind of seeing whether or not we have answered our project question. In these sections, recommendations will also be given for future projects that may lie in a similar theme or area to this one.

Chapter 1: Literature review and environmental scan:

To determine how to best approach answering the question, research was undertaken looking into existing literature. In tandem with reviewing and scanning the literature, other projects related to the topic and tourism applications were also examined. They revealed some determining factors namely for the artefact. The main learning that could be taken from these scans of the environment were mainly found from looking at other tourism apps and websites with tourism based interactive maps.

The use of local knowledge was an early question the project had to navigate. Local knowledge and community-based tourism has a wide range of positives and negatives such as allowing communities to better control their own narratives in the world (Walter, 2009). CBT itself can benefit many rural communities and help with their development and improvement as found by Rocca and Zielinksi in the case of their studies in Colombia. Travesi's studies in Australia found that in some cases local knowledge can become a major attraction and factor that is determinant on how people view and rated their experience regarding certain areas. (Travesi, 2017) (Rocca & Zielinski, 2022). This was also similar to what was said by Zhang, Jiang and Zhu who said that local knowledge is becoming a bigger attraction in the tourism industry (Zhang et al., 2023). Local knowledge was originally not going to be included in the project or was going to be thoroughly neglected however after this research that notion completely changed. Local knowledge began forming a more key and important role in the project. The above articles in combination with others support and justify the use local knowledge in the project surrounding Kinsale as clearly without the use of some form of localised knowledge from the people in the town there would be some element missing from the project. Which meant that the project itself wouldn't be as effective in enhancing the tourism experience in Kinsale which is one of its key aims and objectives.

A large part of the question regarding this project was going to be the enhancement of tourism in Kinsale. According to Seyfi "engagement towards a tourism destination has been viewed as a key influential element in relation to tourist loyalty and subsequent behavioural intentions." (Seyfi et al., 2021). They also point out that Brodie et al says that higher levels of engagement help to increase their behavioural intentions towards a destination and also identified that engagement improves tourists' attitudes, loyalty and intensions to revisit an area. (Seyfi et al., 2021). Zhang, Sotiriadis and Shen found that smart technology also impacts word of mouth recommendations and revisit intentions. (Zhang et al., 2022). Cook 2007 said that web-based learning offers the promise of individualised learning and can allow the user to control their learning more and can learn at their own pace. (Cook, 2007). It is the combination of these factors that has influenced the artefact choice for this project.

To ensure that engagement was met due to its benefits of tourist perceptions as mentioned above, an interactive map will form the main vehicle for this project. As Eanes et al found with their study as long as a user can interact with a map and navigate thematically linked artifacts, or change the map scale or even alter presented map layers it will help to foster more user engagement as it requires greater use of their motor-skills and higher levels of cognitive energies. (Eanes et al., 2019). Not only this but with the addition of filters it is likely that the promise of individualised learning could be achieved as proposed by Cook. Furthermore, allowing the user to remove or add layers based on filters or tags integrated into the map, is one of the key processes of engagement mentioned by Eanes. The map would also meet the criteria of a smart tourism technology which would help to increase word of mouth recommendations and revisit intentions that was put forward by Zhang et al. Increasing the overall engagement of tourists with activities and the town of Kinsale was another big reason behind the choice of the interactive map. As already mentioned Seyfi said that this will increase tourist loyalty, behavioural intentions, and intentions to revisit an area. It could then be said that this will improve and enhance the overall tourist perception in Kinsale. Leading to this effect where Kinsale would benefit from these revisit intentions and improved loyalty which would be an example of this project engaging in the reciprocity that Wilmsen identified (Wilmsen, 2008). This factor could then help improve information that was provided to the project once again increasing the chances that the artefact and project will help to enhance tourism and the tourist experience in Kinsale. Overall, it is clear from the literature that was located that an interactive map in some form is going to create the most effective artefact to complete this project.

When looking over the literature that could be found there was an alarming gap. From what could be found there seemed to be big focuses surrounding the tourism industry but mainly in isolated or developing countries. Firstly, many of the projects that focused on local knowledge extraction surrounded knowledge extraction from small communities that were either marginalized or were in developing countries. This can be seen with Walters research in Thailand (Walter, 2009), McGinnis et al's study into knowledge sharing in Indigenous communities in Northern Australia(McGinnis et al, 2020), Diaz and Zielinksi's studies on communities in Santa Marta in Colombia (Rocca & Zielinksi, 2022), Travesi's research surrounding Aboriginals in Australia(Travesi, 2017), Idris et al's research surrounding developing smart tourism in Indonesia(Idris et al., 2021) and Mahamarowi et al's studies in Malaysia regarding the development of travel mobile apps.(Mahamarowi et al., 2023). Many of the focuses of these studies surround indigenous communities or communities generally in more isolated areas or more developing economies. Lots, of the projects themselves surround environmental purposes which can be seen with Walter's study as it surrounds ecotourism (Walter, 2009). This is why this project is being done as there seemed to be a major "gap" in studies and literature around community and local knowledge in regards to improving tourism in developed countries, as most of the time the local knowledge was solely framed from a sustainability or environmental protection landscape. There also, seemed to be a focus on preserving or discovering information from marginalised or isolated communities to prevent knowledge loss or to encourage people to visit previously completely isolated and non-visited areas of a country. From what could be located there seemed to be a lack of literature that focused on the improvement of tourism in developed communities, and the further extraction of tacit knowledge that exists within many well-established tourist communities. While there were projects carried out in developed areas and countries such as the Buff Oyster fishery in New Zealand. (Hall et al., 2009) this appeared to be an outlier. So hopefully this project can help to fill some of this gap. And act as a theoretical and practical framework that will enable and help guide future literature and research surrounding the extraction of touristic information from well-established tourist communities. Especially ones that may have been forgotten in the pursuit of research regarding developing countries or environmental causes. Allowing further research to also take place into using this knowledge to improve tourism in other areas and communities around not just the region of Cork or Ireland, which are full of similar seaside tourist towns or villages, but maybe even form

some basis for research carried out in other countries and regions of the planet. Which may also have been forgotten by the literature due to what seems to be the notion of them not being able to provide any further touristic insight when compared to undiscovered or unexplored communities in developing countries.

Chapter 1.2: Learnings from other projects, tools and apps.

There was also lots to be learned from looking at similar projects and other studies online. The first learning that became apparent was the use of a review system. The review system was found to be used across a wide variety of tourism applications existing on some major sites like Tripadvisor, Booking.com, Expedia and Yelp. This would likely lead many to believe then that if some of the biggest and most well-known tourism applications used reviews then this is something that this project must also include. However, upon further research it became clear that while being very prevalent in the environment of tourism applications this was something that could not be included in this artefact and overall project. This was because of what could be described as the "plague" of fake reviews. In Biesiada's article they explain how "1.3 million reviews submitted to Tripadvisor last year – 4.4% of its total review submissions – were fake". (Biesiada, 2023). Now while 4% may seem like quite a small number of reviews to be fake and may not be able to fully justify the "excommunication" of reviews from the artefact it is also what those fake reviews can represent. Not only could they lead to some business taking advantage of false positive reviews as Turen describes happened in Montreal. (Turen ,2023). But it could also lead to businesses getting review bombed as Turen also described in his article. (Turen, 2023). And with the expressed purpose of this research project and this artefact to be to help "enhance" tourism in Kinsale this would not be possible with business getting either over or underrepresented based on false reviews. Therefore, while being very prevalent in tourism applications and websites they will not be included as a feature of the artefact or in the research project. A star rating system will still be present on the artefact. However, this is only because it will have a much smaller role. Therefore, the effect the of these fake reviews should be negligible. And the difficulty of removing them was not worth losing the images and other information that google provided.

The next discovery from the environmental scan surrounded locating the navigation function. While the project has evolved one of the core tenants that lead to the project was this idea of making activities more accessible and findable through a navigation system. While local knowledge and it's collation and dissemination has taken the forefront of the project the mapping and navigation function is still of paramount importance due to its engaging nature which was identified in the literature review. The ease to find this navigation feature was good in most of the applications but was a weak point in some- TripAdvisor and Expedia. This was not the only issue as it was found that most of the apps bar Navicup, Mapcarta, and Google Maps you either didn't have the option to navigate to the area at all or it took you out of the app. This is problematic. In the interest of making the application as simple and as accessible as possible for people of all ages, keeping everything in the one place will make this easiest to achieve. As, in their document reimagining Kinsale located on Kinsale.ie and created by Scott Tallon Walker architects, in a section discussing the findings of the 2018 Visitors & Residents Survey there was mention that age profile and namely satisfying older visitors needs needed to be taken into account. (Scott Tallon Walker Architects, 2021). If we were to not even include basic directions this could inhibit older people who may be on average less digitally literate which is supported by ageaction.ie's findings from their briefing paper in 2020. (AgeAction, 2020). Therefore, to truly "enhance" tourism it is clear that the activity or location has to be findable through having a map/navigation feature in the artefact like many of the established tourism apps.

Another finding of note while looking at other tourism apps and their knowledge of Kinsale was their alarming lack of historical knowledge regarding Kinsale. Kinsale itself has a huge history as a town. The town itself can be dated back to the 13th Century when the invading Anglo-Normans first established a walled town. (Kinsale.ie, n.d.). It also saw increased importance surrounding the Battle of Kinsale in 1601, which was a huge turning point for English power in the region and also saw huge involvement from the Spanish. (Kinsale.ie, n.d.). This saw the development of James and Charles Fort which saw Kinsale greatly increase in importance (Kinsale.ie, n.d.). This is just one example of the vast amount of history that is prevalent in Kinsale, but it seemed to be neglected in all of the apps that we're looking at. Yes, there was some mention of say Charles and James Fort but it seemed in general that the vast majority of apps seemed to neglect history and folklore in exchange for

more focus on food and beverages – and even these categories were quite weak. This is something that will hopefully be addressed and will find a bigger role in this project given the prevalence of history in Kinsale. This would potentially lead to "enhancement" of tourism in Kinsale as it would mean that people who come to Kinsale to see for example the Wild Atlantic Way could then also discover the rich history of Kinsale that they may have been previously unaware of. So, a big learning that will be applied to this project and will be a further focus of it will surround enriching information on the history and folklore of Kinsale. On top of this, the weakness of information surrounding some restaurants and pubs was identified and will also hopefully be tackled.

Overall, the literature and projects reviewed has paved the way for many major aspects of this project. The first way is its influence on the use of local knowledge and how it displayed the myriad of advantages and use cases of local knowledge and how this will greatly influence and improve the project and its artefact. Allowing for the creation of an interactive and engaging map will hopefully ensure and promote tourists' perception of Kinsale in a positive manner and will improve their overall tourism experience. With the final aim of this project being to fill the apparent gap in literature surrounding local knowledge enhancing tourism in already developed and well documented communities. In combination with the environmental scan as well this has helped to shape the artefact. With the main findings and therefore focuses of the project and the artefact being a focus on navigation and keeping this as simple and accessible as possible in order to account for the needs of the older population who come to Kinsale, the second big change that will be made to this artefact compared to many of the existing artefacts/apps that could be found was the minimization of a review system. Which will be quite a big change but will remove any risk of false reviews that could alter tourists visiting patterns or experience of Kinsale. And, the last major issue noticed in the scan which was the lack of historical focus and information weakness surrounding pubs and restaurants. These issues will hopefully be addressed by the artefact. There were other major learnings from the literature and environmental scan but these will be discussed further in the Tools and Methodology Section.

Chapter 2: Tools and methodology:

Locating literature regarding knowledge extraction from local communities was quite a difficult process. Due to the fact that lots of the literature was in the context of other studies and were often specific to said study or said region the study took place in. However, a common theme was identified amongst literature that appeared to show interviews as a common and often used technique for extracting information from locals. It was useful for extracting information from local fisherman (Hall et al., 2009), some people even arguing that face-to-face meetings between people and knowledge sharing between sources and intended recipients of knowledge are good ways to ensure knowledge is reused (Markus,2015). Interviews were also used for extracting knowledge from many different community shareholders in Indonesia (Idris et al., 2021). Wilmsen identified that the easiest way for communities to work well with researchers was through developing strong relationships between researcher and community to develop a relationship of reciprocity. (Wilmsen,2008). It would also appear the building of these close relationships may be done easiest through a relationship developed through interviews. The above literature appears to show that interviews are indeed the most widely used and utilized knowledge extraction techniques when it comes to extracting information from locals. While there is likely some better techniques the realm of interviews seems to be the most widely applicable technique. It is used over a wide realm of industries and use cases from the local fishermen to community knowledge extraction to knowledge extraction in Indonesia. So, it is likely that it will be an appropriate technique to use for the knowledge extraction of this project. Shown by the bluff oyster fishery it can also be tailored and setup to allow for more specific routes of enquiry such as tailoring response questions to ask depending on certain answers. (Hall et al., 2009). Overall, it is clear by the literature reviewed that interviewing seems to be the most broadly used and applicable form of knowledge extraction amongst a local community hence the project will follow these findings and use interviews for this knowledge extraction.

The way the interviewing will be carried out will be through the use of note taking. Recording the interviews and then transcribing them later was the original interview technique planned. This was changed to note taking as interview locations varied hence sound in the background could not be controlled. After the interview was completed the relevant parts of it were then transcribed into a word document to be used for later. Whether

that was for follow up questions or for information to be added to the artefact itself. Once the relevant information is transcribed the notes and the transcription will be stored securely both online and offline up until the project's completion where they will then be disposed of in order to keep up with data storage security standards.

Another trend that was noticed in a lot of the projects was their methods of determining the quality of their end result. For instance, Idris et al determined the quality of their app by making it open to students and allowing them to use it and give feedback. (Idris et al., 2021). Mahamarowi et al also used feedback from users when rolling out their application to get feedback on its quality. (Mahamarowi et al., 2023). For Zhangs et al's study they decided to settle on using on and offline questionnaires to investigate the impact of smart technologies on tourist experiences. (Zhang et al., 2022). For Lu et al's study they also opted to use a survey to collect people's impressions of the app itself. (Lu et al., 2020). While this should then be the way forward for this project this would be harder to due to due to decreased tourist numbers over the period the project is being carried out. Instead focus group(s) made up of residents of Kinsale of different ages will be used. They will try out the artefact that is being developed with this project. They will then hopefully be able to compare it with other experiences they may have had with similar tools/apps and say whether they have found the artefact to be beneficial. The results of this will then allow us to determine whether the project has succeeded in answering how technology can be used to collate and disseminate local knowledge to enhance tourism in Kinsale. This was also to see whether this project has expanded the users options and knowledge about them in Kinsale. This of course will go hand in hand with improving the depth of knowledge regarding locations, pubs and restaurants in Kinsale which was something that was found to be severely lacking in the existing tourism apps especially in the historical/ folklore section- despite its rich history. So, the overall method for determining results of these projects will be by analysing the focus group results to see whether or not the artefact has achieved the intended aim of the project.

The hosting tool that was chosen to build the website with the interactive map on it is going to be WordPress. This was chosen for a multitude of reasons. The first and arguably most paramount reason was due to previous familiarity with the tool. This tool was used extensively in both first and second year. Despite using other CMS' like Drupal, WordPress

was the most simple and easy to use that could be found. Secondly WordPress is incredibly widely used and is used by over 43% of websites on the internet. (Silkalns, 2024). Which could be viewed as further validation of its quality and ease of use if many others are using it such as salesforce, meta, TIME, slack, Bloomberg, CNN, USA Today Sports Media Group and Disney. (Wordpress.com, n.d.). The option and plan that was eventually chosen to run the site was the creator plan. This was for a few key reasons. Namely its ability to install plugins which would be crucial to get the mapping software to integrate into the site itself. It also came with 50GB of storage with the option to increase at a later date and also provided the options of Real-time backups and one-click restore. This meant that the risks of website corruption or loss dropped drastically compared to if another option was chosen. It also allowed for a domain to be bought in tandem with the plan making the whole process much easier and more streamlined to do.

Now, while there likely is many other website hosting platforms due to Wordpress' familiarity and ease of use combined with its widespread use and the nature of the "Creator" plan it was chosen as the tool for this project. It is also imperative to mention that while this project could have been carried out without using a website and instead developed in a development environment the website was chosen for a multitude of reasons. The paramount reason was to allow the technical requirements of the final year project to be met. As while originally this requirement was going to be met through the coding of the map itself using JavaScript and other coding software's, due to the nature of Google My Maps and its lack of code the website and analysis will be where the technical prowess will be displayed. This will mainly be done by demonstrating a seamless integration of the interactive map onto the website itself. While still allowing for its nuances and its features to be easily accessible and usable by the user. Not only this but after the project is completed if someone ever wants to revisit it a website allows that- that is if the website is ever made public. Having it on a tool such as WordPress which has a wide range of themes will help to improve the appearance of the overall artefact itself. Combined with this the website makes it easy to expand on certain aspects of the artefact and helps the overall adaptability and flexibility of the artefact and the information in it. Having a website that can be accessed and displayed will also make the overall artefact and project more easily presentable and in general more professional looking on the open day hopefully making it look more impressive to employers and others who will be at the event.

The tool that was chosen for the project to construct the artefact was Google My Maps. There were other tools that were looked at namely the Google Maps API, Mapbox and Leaflet JS. While all the tools did prove extremely useful and had a wide range of impressive features. Especially with Mapbox's extremely customizable interactive maps that allowed you to change levels. Or the google maps API that allowed you to change the style of the map. However, for what was needed for the project and artefact these all proved useful but far too complex and over the top. Google My Maps was chosen for its simple and easy to use UI, the fact that it was free and the fact that the resulting interactive map would still have the rough feel and look of a google map therefore increasing people's familiarity with it. Potentially making it more accessible and easier for them to use it. With its increased simplicity the tool will allow for quicker creation of the artefact therefore allowing time at the end for it to be rolled out to focus groups to get feedback and suggestions surrounding the artefact. Allowing for analysis of these results to help answer the assignment question. This may not have been possible if the artefact was developed and created from scratch using code.

Google Forms was also a tool used for the project. It was used to enable the sending out of surveys to people who used the map. This was done to get their feedback. Specifically on what parts of the map they liked or didn't like or other factors affecting their perception of it. This will be discussed more in detail in the results determination process.

The last tool that was used for this project was Google Colab. It is a software programming environment that we used in second year for data analytics. It served the same purpose in this project. It was used to take the information from the Google Form survey and allow us to make more interesting graphs and comparisons of data.

Chapter 3: Artefact creation process:

To create the map, Google My Maps was used. The first step of the map creation process was changing the map style to "satellite". This was done as it showed the buildings on the map allowing accurate placements of the markers. It also already came up with the existing google maps markers which could then be clicked on and integrated into the artefact map decreasing the time taken to add base information into the map and overall allowing for quicker artefact development.

Once map layout was set, category creation was done. This was done in the form of creating a new layer for each category. Originally, the plan was to create multiple categories that were extremely broad in range to allow the user to have maximum customizability and interactivity with the artefact. However, one of the limitations of Google My Maps was that it only allowed for a limited number of layers to be created therefore limiting the number of categories that could be made. While this was a roadblock with the tool it was not too major an issue as the simplicity and features of the tool were still too appealing to swap to another tool. To amend this issue of limited layers categories got combined. For instance, “Churches” were combined into the “historical buildings” category. Or pubs/restaurants, Cafes and Food trucks were added to the same broader category of Food and Drinks.

When the categories such as place, activity, facilities, and general tourist interest were identified then relevant markers were added appropriate for each place, in Kinsale. This was a quick and simple process. The markers were added to act as a base for local and online information to be added to. There would however be other markers that were added that did not exist on google maps. These were markers such as ones denoting interesting information points, walks/walking paths and other things not marked on google maps.

Chapter 3.2: Results determination process:

Once the map itself is created and populated with information focus groups will be carried out. To get their feedback and to collect results regarding their opinions and judgements of the artefact a survey will be given to participants. The survey itself can be seen below:

Q1: Are you a resident of Kinsale for more than 9 months of the year?

Yes

No

Q2: What age bracket do you fit into(If you are comfortable sharing):

18-25 26-35 36-45 46-55 56-65 65-75 75+

Q3:Please indicate your knowledge about the amenities/ tourism opportunities in Kinsale:

No Knowledge

Very Little Knowledge

Little Knowledge

Some Knowledge

Decent Knowledge

Good Knowledge

Very Good Knowledge

Comprehensive Knowledge

Q4: Have you had experience with other tourism apps/tools and using them in and around Kinsale?

Yes No

Q5: If yes please enter any apps that you have used.

_____

_____

Q6: After using the interactive map from this project would you say that it would improve your experience of Kinsale tourism wise?

Yes

No

No Change

Unsure

Q7: Please explain why you chose the option you chose in the previous question.

_____

_____

Q8: Does the Kinsale Info Map perform better in terms of expanding upon knowledge surrounding restaurants compared to other tourism apps?

Yes

No

No Change

Not Sure

Q9: If you answered anything but yes in the previous question please explain why below:

_____

_____

Q10: Does the Kinsale Info Map perform better in terms of expanding upon knowledge surrounding pubs/bars compared to other tourism apps?

Yes

No

No Change

Not Sure

Q11: If you answered anything but yes in the previous question please explain why below:

_____

_____

Q12: Does the Kinsale Info Map perform better in terms of expanding upon knowledge surrounding historical features compared to other tourism apps?

Yes

No

No Change

Not sure

Q13: If you answered anything but yes in the previous question please explain why below:

_____

_____

Q14: Would you say that the prevalence of local knowledge on the map such as with descriptions of restaurants, historical facts/folklore, viewing points, points of information and jump/swim spots would improve a tourists experience of Kinsale.

Yes

No

Not sure

Q14b: Please explain your above response to question 14.

Q15: Would you recommend this artefact/tool/app to tourists coming to Kinsale to better their experience?

Yes No

Q15b: If Yes or No please state briefly below why?

Q16: Please provide any further feedback that you may have regarding the Kinsale Info Map:

A brief justification for each of the questions and their inclusion will be provided below:

Question 1 was included simply to just establish whether the respondent was familiar with Kinsale as this would then give us an understanding as to why the respondent may or may not already have a good base of knowledge in Kinsale and why this could be.

Question 2 was included as a large aim of this artefact was enhancing the tourist experience. In order to see if the artefact is inclusive of all ages, age ranges were added. The age ranges were chosen for specific reasons. 18-25 was chosen as that would represent the young adult population that would come to Kinsale that may not have as big a budget and would be more interested in the nightlife side of Kinsale. 26-35 was chosen as they are normally the young professional age so they may have a bit more disposable income. They will still generally enjoy a good night life but will also be more interested in restaurants or activities that are friendly for extremely young kids. 36-45 was chosen as this category has younger families that will really have lost most, if not all interest in a night life and will have more disposable income that would be guided more towards family centric activities. For the age range of 46-55 you will find older families wherein nightlife may come back into effect given the advanced age of the children. The adults will still have mobility and will still be looking for a wide range of activities to partake in and budget will not be as big a concern for them. For 56-65 this is much in the same except for the fact that family activities will teeter off as kids get older and may not attend as many holidays. 66-75 is often where the highest amount of disposable income will be seen, with the age range only consisting of couples as the kids have left the nest. At this stage mobility may start to become an issue so many activities will not be doable and therefore they will be more focused on what is near them and easily accessible. 75+ is where we see the lowest mobility hence accessibility will become the top priority for tourists of this age and generally disposable income will be quite high. For tourists of this age family related activities may also come back into play as they may now be on holidays with their kids and grandkids.

Question 3 was once again similar to Question 1. In which it was just trying to gauge the respondents overall experience with Kinsale and their knowledge surrounding it. With the aim of giving an insight into their later responses.

Question 4 was added to give context to the responses to question 5,6,7, 8, 10 and 12. As this will help us understand why the respondents may not be able to accurately comment on these categories.

Question 6 was simply put in place on the questionnaire as a general feedback response for the tourists to rate their overall experience of the artefact. And for us to get a rough idea of whether the reviews of the artefact are positive or negative. This also helped us determine whether or not an interactive map was the best technological method for dissemination.

Questions 8,10,12 were included as they were the main categories and areas that were noticed as weak while looking at other tourism apps and tools. Therefore, they will be the easiest tools and categories to compare with the artefact. Specifically, the history/folklore category as local knowledge was completely lacking from this category in all the tools and apps that were looked at. These questions may also give an insight into specific parts of the artefact that respondents felt were greatly improved by local knowledge. This could tell us which ones then may have had the biggest reason for the user having a positive experience with the artefact. Which could potentially help us determine which of the three factors plays the biggest role in improving tourists experience of Kinsale when supplemented with local knowledge.

Question 14 is there to get a direct answer to the question of the project. While the others also do this they are more holistic. This question is there to get straight to the point and get a quantifiable metric. A metric we can use to tell whether local knowledge can enhance tourism in Kinsale.

While Question 15 may look very similar to question 6 it was included for a specific reason. It can be argued that it is one thing for a person to say that the artefact has improved their own experience but for them to say that they would recommend it for another user would really display the persons satisfaction with the artefact. This would really tell us whether the artefact has had that enhancing effect. Question 15b is simply there for the feedback to simply allow us to get a general idea of why the user would recommend said artefact to others.

Question 16 is there simply to just allow the respondent further space to give feedback that may not have been applicable in any of the previous categories.

Questions 7, 9, 11, 13,14b are there to simply extract further information from the question preceding them.

Once the results of this survey are collected, they will be analysed and following this analysis it will allow a conclusion to be made regarding whether the project has answered it's question. The analysis will be carried out using the Pandas library in python. This is being used for two reasons. Firstly, familiarity as we used pandas extensively in second year for analysis. Secondly, Pandas has all of the functionality that we need in order to sufficiently analyse the results. The results will then be displayed in the form of graphs that will be kept simple and easy to read in order to make the results as clear as possible from the focus groups.

Chapter 4: Artefact/Website Design Process:

The map itself was able to be integrated through the use of the simple HTML block in WordPress. The iframe code was then simply copied from the maps share function on Google My Maps. When initially putting it onto the website it was a very bad size and position seen

in figure 4.1.

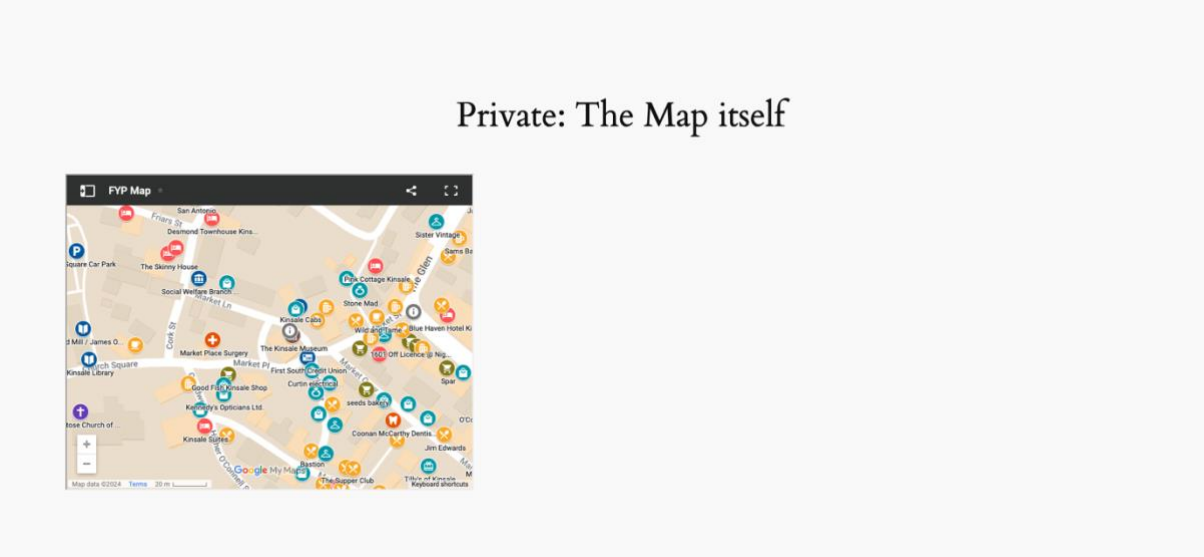


Figure 4.1

After code changes and alterations – which can be seen in Figure 4.2 the map now looks like this on a desktop.

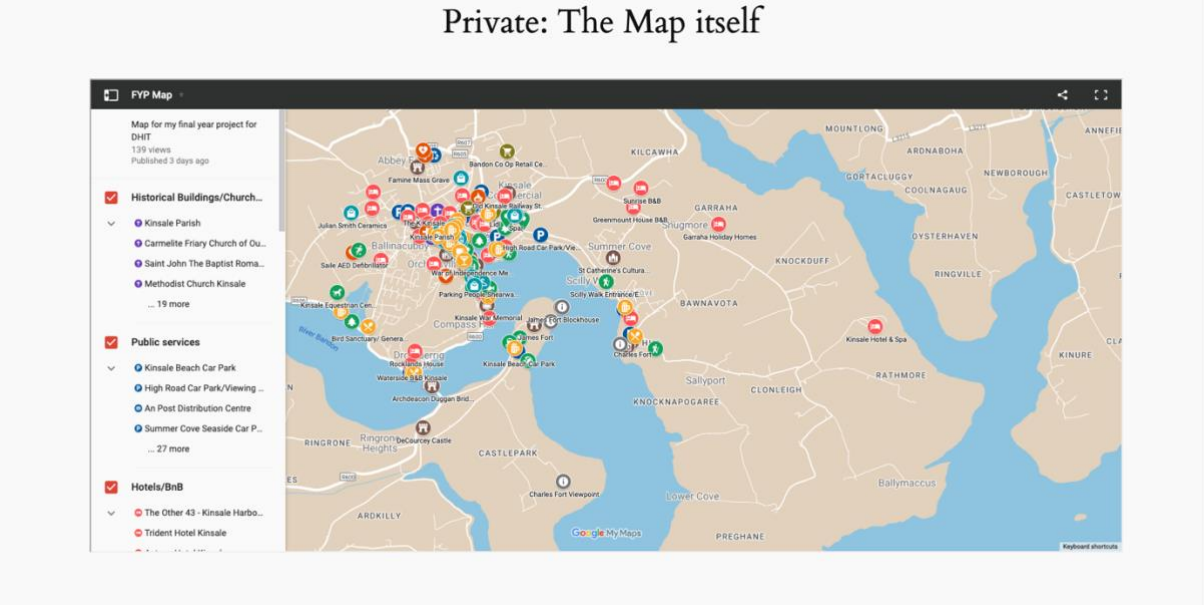


Figure 4.2

This was achieved by going into the code editor on WordPress for this page. It was then edited so the map would appear correctly on the viewport of the device its being viewed on. This was achieved using the CSS vh and vw measurements units for the width and height. This however did not allow mobile to be taken into account properly. It would only appear

lengthways on mobile and was essentially unusable. To fix this CSS media queries were used – the code for this can be seen in Figure 4.3.

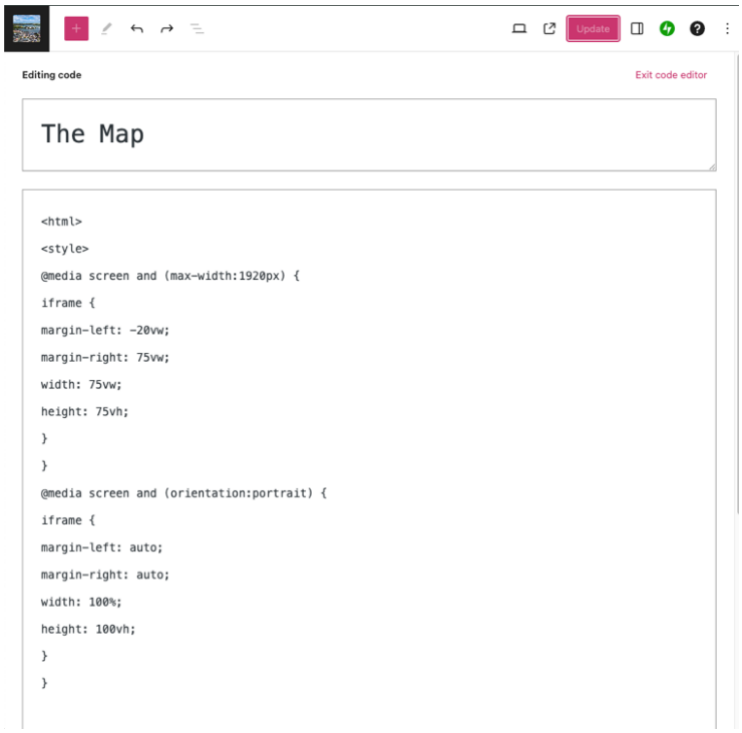
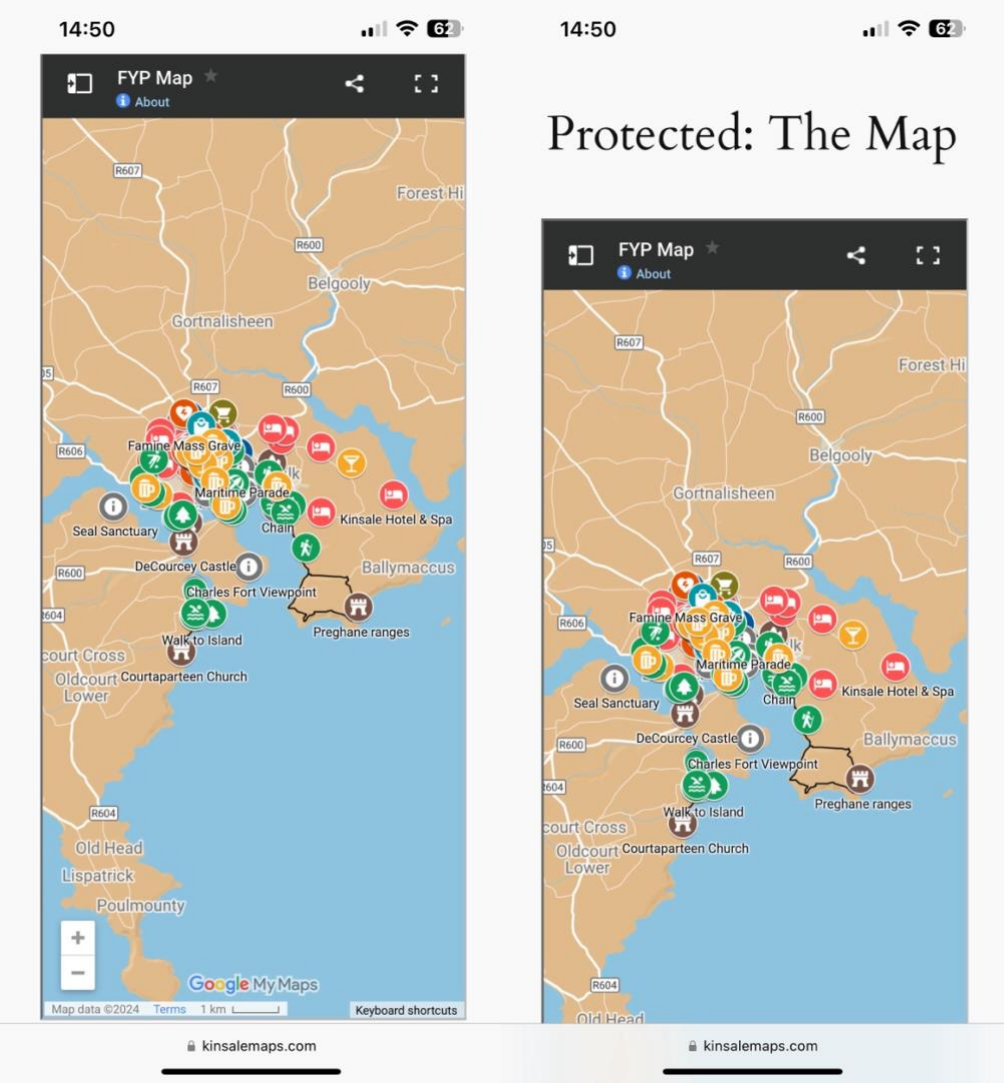


Figure 4.3

The CSS media query function allowed us to specify different rules for different screen sizes and orientations. In order to prevent confusion with the rules applied to the computer screen we had to specify orientation. This is because, setting the max-width at 1920px would apply those rules to phone. So after we specified the orientation as portrait. This then meant that these rules would be applied to phone. Again using a combination of vh,vw and percentages we were able to achieve a centered map on the phone. This can be seen below in Figures 4.5 and 4.6 which show the phone view.



Figures 4.5 & 4.6

Chapter 4.2: Design decisions regarding the map:

As previously mentioned the markers were put down in the “satellite” style on Google My Maps. While visually appealing the Satellite style was not chosen because of clustering issues. Essentially, when the markers were added for the artefact map the google ones would still be present. So there was a doubling up in many areas of markers. This would give an incredibly clustered look. To amend this issue the “Simple Atlas” map style was chosen. This style was chosen for its simplicity and plain colours. The beige of the map really allowed the markers to be emphasized, and took away any potential visual distractions to the user. There were other map styles such as “Mono City”, “White Water”, “Light Political” and “Dark Landmass” which looked similar to “Simple Atlas”. However some of these still had the

clustering issues. “Mono City” and “Light Political” did not have clustering issues. However they were both too light and it was hard to discern streets and buildings on the map. This would have been a big issue for people with vision issues. It would also have inhibited the maps use in sunny conditions. If someone was to use it on their phone walking outside any sort of sunlight/glare would make the lighter tones impossible to see.

A lot of thought also went into marker design. Some marker colours simply used similar or the same colour as is present on Google Maps. This was to ensure this feeling of “familiarity” was maintained. Examples of this include the colour of the categories Restaurant/Takeout/Cafe, Hotels/BnB, Doctors/Medical Services/Emergency Services, Parks/Walks/Outdoor Activities and Public services. The reason that these colour categories were not altered is that they were all deemed appropriate for what they represented. Such as green for parks and outdoor activities or the warm yellowish colour for food and drink establishments. Green of course is associated with grass and trees that can be found outdoors, and some articles and studies suggest yellow can evoke feeling of warmth and can even increase hunger levels.(Peate, Nd)(Small, 2020). Some were changed however. Historical buildings were changed from a pale blue to a dark brown. Dark brown was chosen over pale blue as it was deemed a more earthly and ancient colour. Churches were given the colour purple. This was because this is a common colour for many priests and clergymen to wear. (Surrat, 2022). Shops are originally grey in colour on Google Maps. This makes them easy to miss. To counteract this they were given a turquoise colour which made them much more noticeable. Food Shops/ Convenience Shop were given an olive colour. This was simply chosen as it was one of the few easily discernible colours that remained. Lastly Points Of Interest were given grey. This was because there was no real colour that jumped out at being applicable to them. Grey while being easier to gloss over was still very discernible from the map colour and the colour of the other markers.

Icons were another area where changes were made. The first area where changes were made was with the shop icons. On Google Maps the icons for shops were all the same. Yes, there was some text underneath denoting what they were. However, at a first look or for those with bad eyesight it would be hard to distinguish shop types. To navigate around this varied icons were used for shops. For jewellery shops a ring icon was used, for clothes shop a hanger, a painters board for art shops, a present box for gift shops, and then just a shopping bag icon for more generic shops. Changes were also made to icons for bars and wine bars/cocktails

lounges. In google maps wine bars and pubs had the same icon of a cocktail glass. This would make it harder for people looking at the map to distinguish between the two. To amend this pubs were given a large German style beer glass icon. Wine bars/cocktail lounges maintained the cocktail looking glass to denote the difference between the two. Icons regarding outdoor activities also required some editing. They either were not appropriate regarding the actual activity or there was no icons at all and just a coloured node. Appropriate icons were added. For instance for “Atlantic Offshore Adventures” it was originally a green node. This was changed to show someone surfing which was one of the activities they offered. It also just gave the general idea that Atlantic Offshore Adventures offered on the water activities.

Upon clicking on an icon an information bar appears on the left side of the screen. This information bar is almost identical to the regular google information bar. It didn’t really need much changed with it. The images were provided and so was other information such as reviews, location, images, website links and also phone number. These were all kept in. Especially the images as there was many pictures of interiors of restaurants which I may not have been able to get access and permission to picture myself. This did leave the issue of reviews still being present in some form. Star based rating came as part of the google information. Upon trying to remove them it caused the issue of also losing all the useful images and other information that was provided. So, the decision was made to compromise. The star reviews were kept in, in order to retain the other information. This may appear to contrast the earlier notions of removing reviews completely - due to the prevalence of fake reviews. However, it was felt that the value of the other google information outweighed the negatives of the stars being present. The artefact was also not relying solely on said reviews. Meaning that the effects of any fake or malicious ones would be more limited compared to other tools.

Chapter 4.3: Design and development decisions regarding website:

The website was developed using WordPress. Part of the benefit of this was access to a variety of themes. The theme that was chosen was the Twenty Twenty Four theme. This theme was chosen for a variety of reasons. Firstly was its compliance with a wide range of W3C accessibility standards. Firstly the theme fits with the one of the W3C requirements of adaptability. (W3C, 2023). With the theme being able to orientate depending on the viewport and being usable no matter the device, it meets this standard. Specifically section 1.3.4 titled Orientation. It also met requirements in section 2.4. With it having very prevalent titles and headings that were easy to locate and read. Not only this but the heading was repeated twice both in the menu and then on the page itself ensuring that people themselves will never be unsure of what they are looking at. (W3C, 2023). The theme was also chosen for its robustness – section 4 of the guidelines. (W3C, 2023). With it being the most recent release most plugins and features will also now aim to be compatible with it. Not only this but it is the release that is most likely to be compatible with future development and releases of plugins, features etc. Ensuring that the website will be able to operate with the theme for a longer period of time compared to other themes or previous releases. The theme itself was also developed by the WordPress team, meaning all WordPress created plug-ins are guaranteed to work with it. The colour of the theme was also appealing. It is very simple black text on a white background. The menus and the homepage also have a very clean and simple look to them. This achieves two things. Firstly it ensured that the website was readable and accessible to anyone who may be colourblind or have sight issues in general. The stark contrast between the black and white ensured its readability. The simplicity of the menus also made them very easy to navigate. Especially when combined with the BreadcrumbNXT plugin that was placed normally further down the pages. This meant you did not have to scroll all the way back up to return to previous pages. Secondly, the simplicity in the colours and the layout of the website helps to ensure that the main focus of the website is not lost – this focus being on the content and more importantly the map. A more colourful, “busy” and complex theme may have drawn attention from the content and the map. This is the exact opposite of what the website was intended to do.

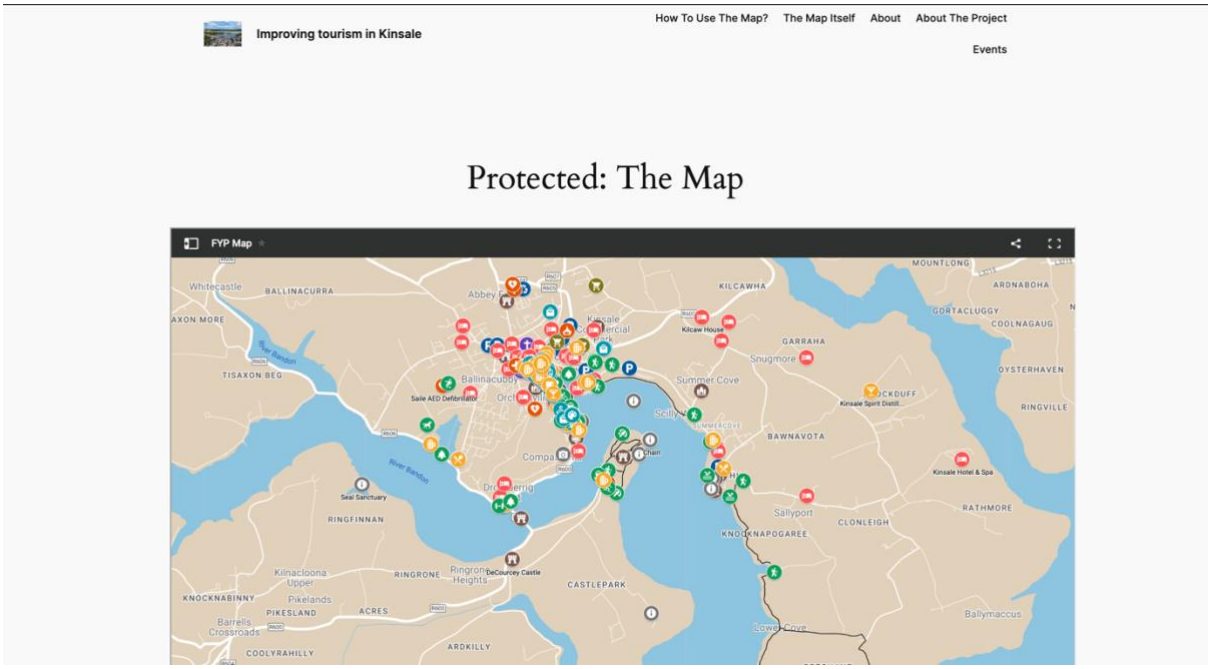


Figure 4.3.1

In Figure 4.3.1 you can see the map is the main focus on the page. There is nothing around it to take away users attention. Ensuring all the important information and work that has been done on this project was appreciated. This also helped to highlight other plug-ins such as the weather plugin which was placed on the homepage. The Weather Atlas Widget was added. This was to give users an idea of the weather in Kinsale so they could plan accordingly. It was customized to ensure that it was not clustered with unnecessary information. The background colour was also edited as blue may remind people of the sea. Its simplicity and design can be seen in Figure 4.3.2

Figure 4.3.2

The Events Calendar plugin was also utilised. This was so an events calendar could be placed on the website giving more context for the events mentioned on the map. Figure 4.3.3 shows what this looks like.

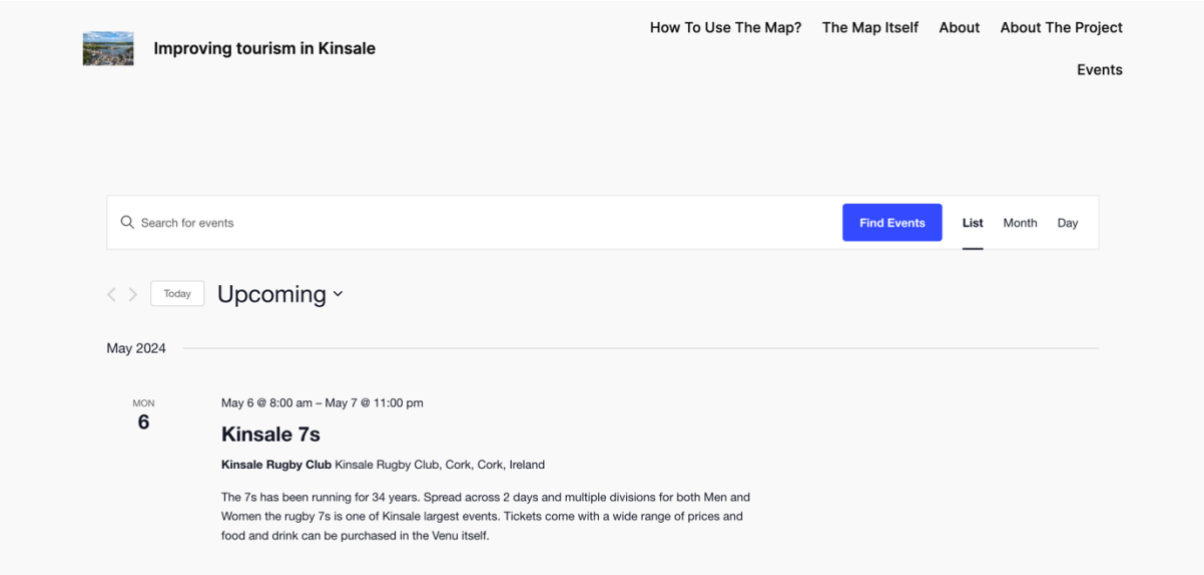


Figure 4.3.3.

For users who were unfamiliar with an online map such as this a page was added explaining how to use it. This was done in the form of 2 lists. One for how to use the map on desktop. And the other for how to use the map on mobile. An extract from this page can be seen in Figure 4.3.4.

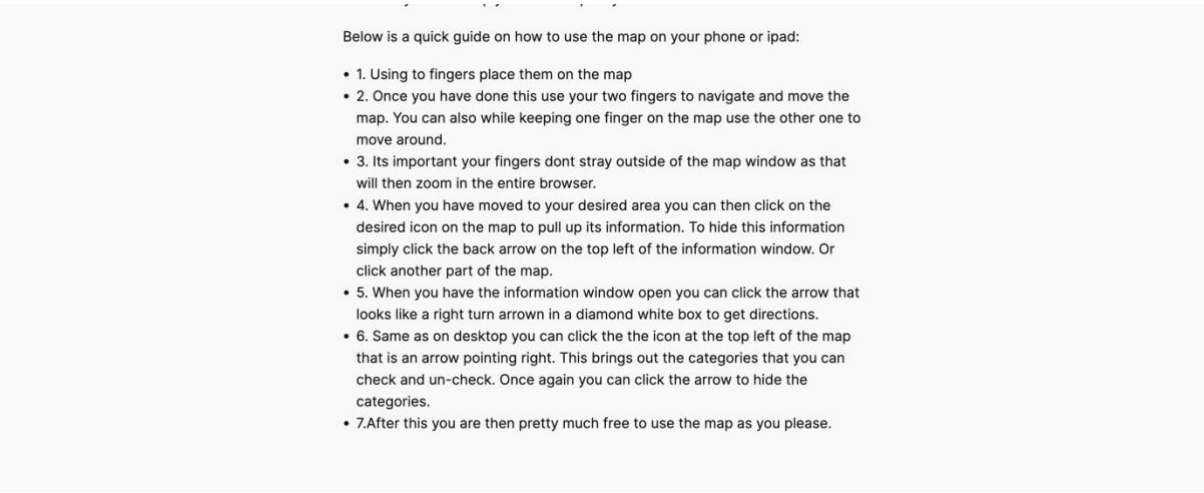


Figure 4.3.4

Chapter 5: Results and analysis:

The survey results shine an extremely positive light on the project and its aim. The overall results in every category was very positive. The feedback for the test questions was also incredibly positive overall. As previously mentioned the respondents were chosen from locals in Kinsale. They were chosen for their broad knowledge and quite wide age range.

The first and potentially the most important result of the survey can be seen in the image below.

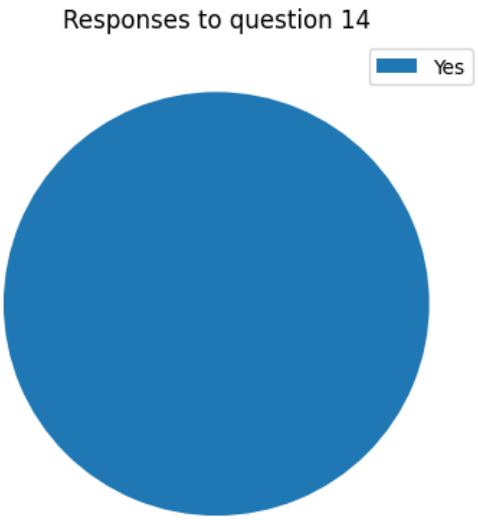


Figure 5.1

Figure 5.1 relates to the question "Q14: Would you say that the prevalence of local knowledge on the map such as with descriptions of restaurants, historical facts/folklore, viewing points, points of information and jump/swim spots would improve a tourists experience of Kinsale.". Figure 5.1, shows that 100% of respondents have said that they feel that this local knowledge would improve a tourists experience of Kinsale. In the further feedback section – Question 14b – responses ranged from complimenting historical knowledge, complimenting inclusions of walks and jump spots and general responses regarding the respondents learning new information themselves. The fact that the respondents said they learnt a wide variety of information is even more impressive when you consider the fact that only 1 of the 11 respondents was not a resident of Kinsale. When you look at the

knowledge spread you can see that the overall self-perceived knowledge level was very high. Everyone said that they had decent knowledge or above with the majority seeing that they had “very good knowledge” and one even saying they had “Comprehensive Knowledge”.

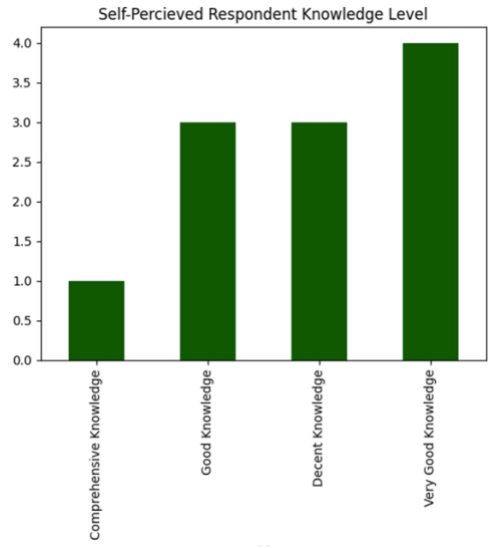


Figure 5.2

This makes the feedback of locals learning more information more impressive. As even though they all considered themselves to have a decent or above level of knowledge most indicated they learnt new information. The combination of both the responses from the locals and their feedback shows that the local knowledge on the map is comprehensive. Also, looking at their feedback and responses they are all under the impression that this would improve tourists experience of Kinsale. With even the non-resident seeing that the local knowledge would enhance a tourists experience. Now, to get further validation of these results, surveying and analysis should be carried out of actual tourists. Initial results do appear to show local knowledge enhancing a tourists experience in Kinsale – but it must be noted this is theoretical as this feedback is from locals. But, it could be said if it has improved a locals experience then it must improve a tourists one.

Another part of the question was how can technology be used to lead to this enhancement. Well it appears that the survey results have also answered that question. This is seen with the responses to the question “Q6: After using the interactive map from this project would you say that it would improve your experience of Kinsale tourism wise?”. Again 100% of respondents

said it would. A lot of the positive feedback in Question 7 was attributed to things such as navigability and it showing place locations simply and easily. There was not a single response in which an alternate medium was mentioned. The medium of an interactive map was chosen as previously stated to help with engagement, word of mouth and individualized learning mentioned by Zhang et al, Seyfi et al, Cook and Eanes at el. The map appears to have delivered on these promises. With respondents mentioning their own learning, the fact that they would recommend others to use the map and engaging with areas and their descriptions as positives. So, not only has the map achieved its aims found in the literature. But also, its navigation and location functions have been highlighted as major positives of the artefact. Suggesting that any project that is done in the future should use an interactive map if location or navigation is an aspect of the project. It also answers part of the project question of how can technology be used. The technology that should be used should utilize an interactive map.

Another positive result relates to responses to Questions 15, 15b and 16. These respective question titles were “Would you recommend the Kinsale Info Map to tourists coming to Kinsale to better their experience?” , “Please explain your response to question 15” and “Please provide any further feedback that you have regarding Kinsale Info Maps” in that order respectively. One hundred percent of respondents said that they would recommend the artefact to a tourist coming to Kinsale. The feedback for 15b was just as positive which can be seen in Figure 5.3.

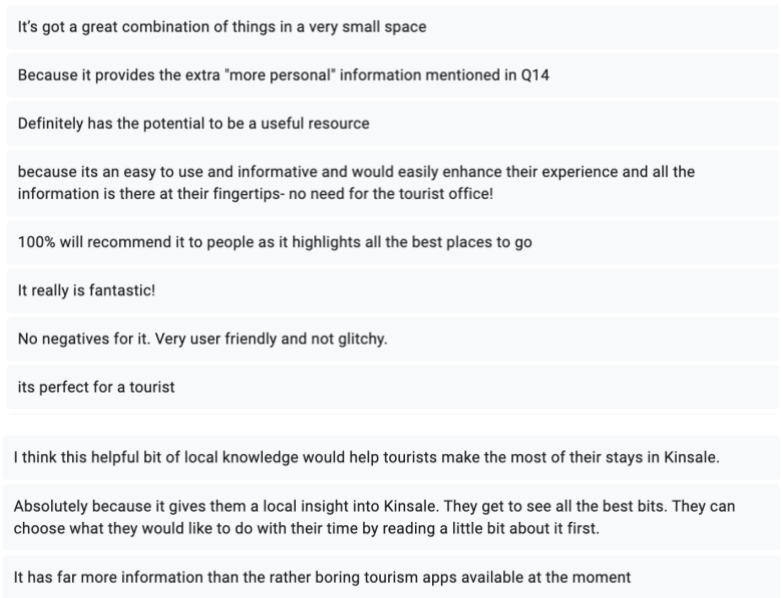


Figure 5.3

All of the feedback is incredibly positive and points to many different factors as to why they would recommend it to a tourist. This leads onto the feedback in Question 16 which can be seen in Figure 5.4.

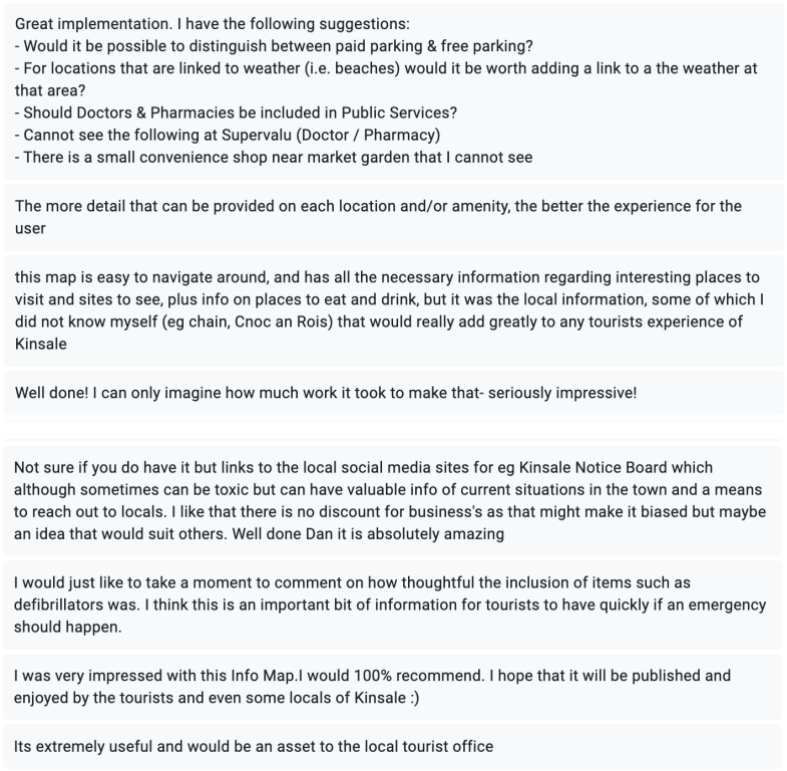
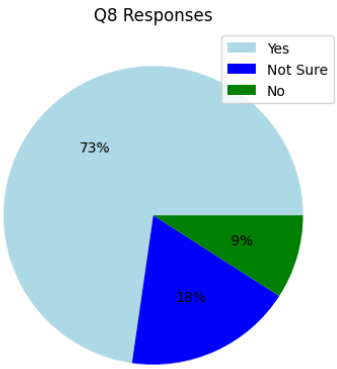
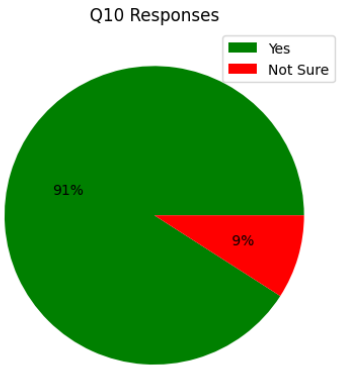


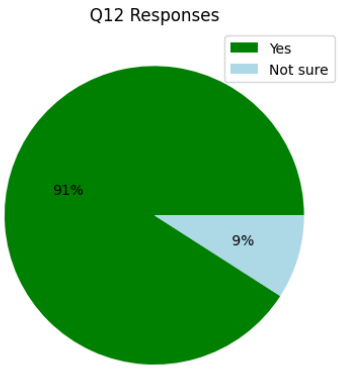
Figure 5.4

While some of it constructive, feedback can once again be seen to be extremely positive here in regards to the artefact. Overall the 100% of respondents saying they would recommend the artefact to tourists, along with the feedback surrounding it and the feedback for question 16 shows another positive success of the artefact.

As mentioned in the environmental scan information surrounding pubs, restaurants and historical sites/folklore were deemed as weaknesses of apps in an around Kinsale. Results showed that respondents felt that the artefact outperformed these other apps in these aspects. This can be seen with the results in Figures 5.5,5.6 and 5.7.







Figures 5.5, 5.6 & 5.7

The pie charts represent the questions “Does the Kinsale Info Map perform better in terms of expanding upon knowledge surrounding restaurants compared to other tourism apps?” , “Does the Kinsale Info Map perform better in terms of expanding upon knowledge surrounding pubs/bars compared to other tourism apps?”, and “Does the Kinsale Info Map perform better in terms of expanding upon knowledge surrounding historical features compared to other tourism apps?”. However, before analysing these graphs we must first look at another questions response in Figure 5.8.

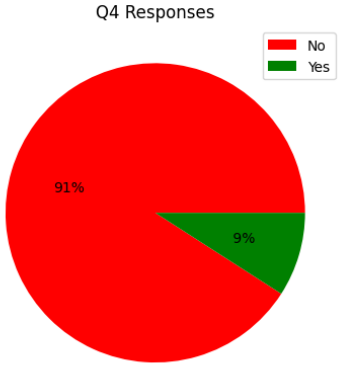


Figure 5.8

Question 4 is “Have you had experience with other tourism apps/tools and using them in and around Kinsale?”. Here is where the issue lies. 91% of respondents - 10/11 – have not used a tourism app around Kinsale yet they all made comments regarding how this artefact performed compared to other apps. If we look in the responses to Question 9 it would appear that there was a misunderstanding of the questions. As it appears that 2 respondents were just solely critiquing information on the map. One did indeed answer appropriately for this question. These responses can be seen in Figure 5.9.

I have not used any tourism apps so I am unable to compare

No. It is useful in terms of showing location but a diner would probably look to Tripadvisor to get more detailed information on the Restaurant

It could do with more restaurant information... opening hours etc. (especially for the food trucks which aren't always there)!

Figure 5.9

Therefore the results of these 3 questions does not seem to be useful in our analysis. However, what if we were to treat them as comparing them to other general sources of information or as criticisms of the artefact? If we were to do this then it would seem once again the artefact has achieved one of its goals. Which was fixing the weaknesses found in other apps that surrounded pub, restaurant and historical/folklore information. However without opinions from people who have used these apps and the artefact we cannot make this assertion with 100% validity.

One interesting finding that would be useful to other projects regards the correlation between respondent age and perceived level of local knowledge – or lack of. This can be seen in Figure 5.10.

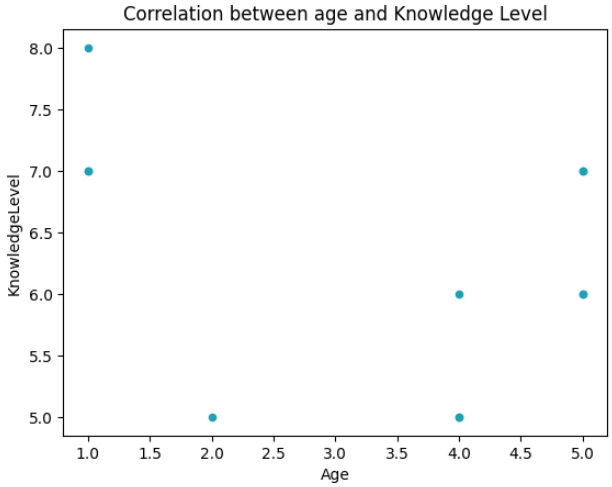


Figure 5.10

Firstly to explain the numbers it must be pointed out that in order to put the age ranges and knowledge levels into a scatter plot the data had to be quantitative. This was done by giving each age range and knowledge level a corresponding number. This numbering can be seen in Figure 5.11.

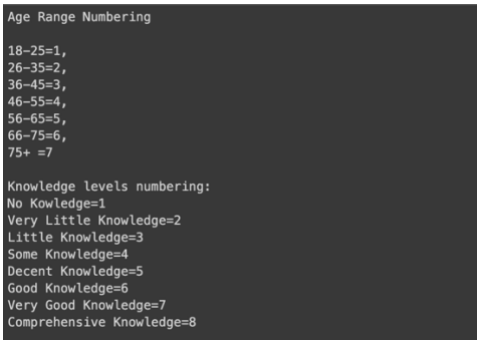


Figure 5.11

What the results suggest is that there is no correlation at all between age and self-perceived knowledge level. Even though this is all self-perceived it is still likely that this perception would refer to their actual knowledge level. There was no benefit of them lying about their knowledge level for the survey. The sample size was also quite small with only 11 respondents. And while further analysis should be carried out on a larger group to verify this data it does suggest that when interviewing people to get information, age should not play a role in the decision making. As age does not suggest knowledge level, seen with the lack of correlation. This should be something that should be taken into account when carrying out projects similar to this.

Overall, analysis of the survey results suggest a widely positive outcome regarding the projects goals with the artefact. This can be seen with the large and sometimes unanimous votes of confidence that was put forward by the residents. Not only but the survey has showed that the project has achieved its goals in answering the project question. As it appears to show that local knowledge does indeed enhance tourists experience and tourism in Kinsale and that the best medium for this is through using an interactive map. It also found some other interesting discoveries as with the lack of correlation between age and self-perceived knowledge/ knowledge. And leaves a good framework for use in other similar projects with even some places to carry out further research in Kinsale. Especially surrounding the questions regarding pub, restaurant, and historical information in the artefact and how this stacks up to other apps.

Images of the code used to develop the above graphs, charts and figures can be found in the appendices section.

Chapter 6: Critical Analysis:

While carrying out this project there was some issues noted with certain aspects and lessons learned surrounding certain topics.

The first issue was with Google My Maps. It proved extremely useful for this projects needs and timeframe, but it did lack in-depth customizability. It did allow for customization of icons, widget colours, map background and descriptions. It also allowed for simple and easy access to navigation. Using the google maps navigation algorithm for the direction feature. This saved time in regards to searching or developing a navigation algorithm. However, it would have been even better to allow for further customization of the info bar that pops up and its lay-out and colours. Also, further colour customization of the map would have been welcome to show off areas such as parks or car parks visually. Instead of just having them as points on the map like everything else, as on the actual map the only distinction that is made is with buildings and roads. Another issue with the map style that was chosen was that some building footprints overlapped with other buildings and roads. This created some inaccuracies

on the map. Buildings such as the convent or the forts didn't have full accurate footprints on the map. Another issue was found regarding its use on mobile phones. While it was able to be sized correctly, it requires two fingers to use which can be awkward and hard at times. This is because sometimes it can accidentally zoom you in incorrectly or can be unresponsive. However, for the project and its scope these issues did not have too big an affect. This is because none of this affected usability majorly or the look of the map. But if one was to do a future project themselves then they should consider these limitations of Google My Maps.

Another issue regarding the map was surrounding the creation of categories. Category creation was limited with Google My Maps. It would only let you create a certain number of different layers. So categories had to be combined. This could potentially be seen as a mark against it in terms of its metrics of engagement. As there is less categories for people to engage with. However, luckily the categories were very easily combined to ensure that everything could still be organized effectively. This meant that the layer limitation wasn't too much of an issue.

Even with these issues it is clear that if carrying out a similar project with a similar time scale and requirements Google My Maps would be used again. This is mainly due to its incredibly streamlined nature and its ease of use. As even with the lack of customizability and the overlapping of footprints these issues were not big enough to impact the quality of the end result. Addressing these issues would have not only enhanced the aesthetic appeal but also contributed to an overall improved user experience. If the project was to be approached again with more time, more consideration would be given to Leaflet.Js or Mapbox for map creation and development. As these tools while more complicated to use, allow for more freedom and customizability.

With the use of WordPress there was not much that could be criticised. The tool offered a wide range of features, plugins and customizability options. It made the acquisition of a domain extremely easy as well as it was part of the plan purchasing process. The "creator plan" was also extremely beneficial with its anti-malware features, its backups, large amount of storage and its unlimited use of plugins. There was one issue however that could be levied against it and that was its cost. The creator plan for all of its benefits cost 300 euro. Even with this plan there was still plugins that you would have to pay to use. However, getting away from price, the wide range of features, themes and plugins allows for an almost infinite

amount of combinations site look and feel. From how it looked to how it functioned. It also allowed for the map to be displayed, and for us to give context to the area of Kinsale and instructions how to use the map. Something, which would not have been possible So, if possible to access it affordably, WordPress would be a tool that would be strongly recommended for carrying out projects similar to this.

The process of the local knowledge collection also had its advantages/disadvantages. As mentioned above interviews were used for knowledge collection. Interviews proved to be as useful as expected given their wide range of use that was observed in other projects. Interviews allowed connections with the interviewees to be made. Which, led to it being easier to have a flowing conversation with the interviewee. This seemed to disarm them and really make them most willing to share their local knowledge or general opinions and perceptions of Kinsale. If one was to use interviews it would be strongly advised they choose a designated interview location with predictable variables like sound. This would allow them to record the interview instead of having to take notes which would make the interview a more streamlined process. This could potentially allow them to get more responses in the time they have allotted. However, note taking proved to still be an effective technique. One thing however that would be recommended is having some structured questions with follow up question. This is because during the interview many locals did not realise that the information they knew counted as local knowledge. It seemed many on first being asked tried to think of extremely niche or obscure information. For instance, one of the locals did not realise that their knowledge regarding a dangerous swing in one of the parks counted as valuable local knowledge. Another didn't realise that simply the spot where they take their pictures on their morning walk was also good local knowledge. I must clarify that they took pictures at this spot as it was one of the few where you could combine the bay of Kinsale the two forts and the town. The structured questions would also prevent interviewee going off on tangents or rants which happened from time to time. The last thing that would be changed regarding the in person information retrieval process is the number of interviewees. Including myself as a source of local knowledge there was 5 participants in total. While the current number of interviewees was satisfactory, increasing their number could have allowed for gathering of a broader spectrum of local insights and knowledge. The big issue however with this group was the age range. Interviewees ranged from early 30s to mid 50s. As a result four huge demographics were missed out on. These were teenagers, young adults, retiree fringe and senior citizens. By not interviewing these demographics a lot of potential local

knowledge has been left on the table. This means that the local knowledge that was collected was good and was a proof of concept, but it could have been much broader and better. While it was found that there was no correlation between age and amount of knowledge as previously mentioned, there was nothing saying that different age groups wouldn't have different types of knowledge. Therefore, if this project was to be repeated then for the interview have probing questions with follow ups, increase the number of interviewees and interview a broader demographic of people. These suggestions and learning would allow for the biggest quantity of quality local knowledge to be extracted as easily as possible from locals.

One of the lessons learned was the source of local knowledge did not always need to be directly from locals. There was pieces of local knowledge that could be found online that was posted by other locals. For instance, some of the information regarding BnB buildings and their owners could be found on their sites. Now of course some could then question whether this means that this knowledge could now still be said to be local knowledge? Well, it is information still coming from the locals of the town therefore it was still accepted as local knowledge for this project. It then seems that other tools and apps that lack this local knowledge seem to have just neglected this information. And in some cases all that was needed was collation of this local knowledge into one place. So, if another project similar to this was to be carried out then it would be advised the researchers look to the internet as well as interviews as sources of local knowledge.

The use of an interactive map was one of the biggest decisions made regarding artefact creation. It is safe to say that this was the best choice of medium to disseminate the local knowledge that was collected. The map aspect made it very easy to display the relevant information alongside its location and images of it. Then the interactivity aspect ensured that tourists were able to get the information they were interested in. Instead of having to aimlessly scroll through different sections or navigate pages of information. It was all presented in one place on the map. One issue is that an interactive map may run into visual clustering in more urbanised and built up areas. If a project such as this was repeated in a more urban area it could become visually useless. It would be clustered making it impossible to discern what different things are. For instance a skyscraper that has many amenities would just appear as a mass of nodes. Therefore, a different approach may need to be taken in more

urbanised and built up areas. Or there may need to be removal of some categories. However, for a project similar to this in a similar area an interactive map works perfectly.

Upon interviewing a local historian he suggested that Kinsale has a very transient and ever changing population that may affect passing down of local knowledge. This was something that was noticed with other interviewees. For instance there wasn't much local knowledge around historical uses of buildings or even business owners. With there being really only one or two business owners who were mainstays in Kinsale. It could be due to a small sample size of interviewees. However, population change/growth likely also played a role. According to census data in 2006 Kinsale had a population of 2,290 people. (CSO, 2006). Whereas, the most recent census in 2022 showed that Kinsale population has more than doubled to 5,991. (CSO, 2024). Even in 2011 the Kinsale population sat at a mere 2,198. (CSO, 2024). With this rapid rise in population, with a 170% increase just 11 years it is likely that people have not been in and around the town long enough to learn and acquire their own local knowledge. Also in this 11 years one could raise the question of how many locals have passed away or left taking local knowledge with them. The combination of these two factors could lead to local knowledge not being passed down. This rapid growth could also affect Kinsales sense of community. Now, this is purely speculation, but with the rapid growth of the town is it possible that a sense of community has been lost? With this sense of community loss newer townspeople may care less about local knowledge or the area in general. This could lead to lots of local knowledge not being gained or even sought out by new residents. Leading to a loss of knowledge. Also, they may not have enough pride to find these hidden gems or even to create their own. So, when carrying out a project such as this in an area of similar rapid growth its potential effect on local knowledge should be taken into account.

Conclusion:

The project appears to have satisfied its goals in answering the question of "How can technology be used to collate and disseminate local knowledge to enhance tourism in Kinsale?". To get to how we answered this, we must first look back at the decisions and results of each section.

The findings from the literature review and environmental scan were extremely beneficial. Local knowledge did indeed prove to be as useful as it was proposed in the many studies that were examined. This can be further seen by its positive influence in the feedback from the questionnaire. The positive benefits of the interactive map also appear to have been accurate. The fact that the artefact was an interactive map did lead to increase in engagement and an increase in word of mouth recommendations. As many of the respondents pointed to the map as something they were a fan of. The project itself will hopefully act as a good framework to fill the knowledge gaps that were found in the literature. The influences in decision making from the environmental scan also appeared to have been positive. The minimization of reviews' effects, the inclusion of navigation and the increase in information surrounding historical features and pubs/restaurants all seem to have been positive. Therefore we can say that the influence from the literature review and environmental scans discoveries was positive on this project.

Interviews lived up to their widespread use during this project as well in terms of collecting information. This in combination with questionnaire use that was seen in other projects combined to create an effective "team" in terms of knowledge collection and assessing that knowledge. WordPress proved to be as simple and effective to use as expected. It combined well with Google My Maps to create a good place to display the artefact which was the interactive map. These two tools also made the design and creation of both the website and the map as easy as possible. This allowed for more focus to be put into key parts of the project while also still having a good looking area to display the results. There were some issues in this area such as responsiveness but this was solved using CSS media queries.

With the website and maps good but simple design it really made the collection of the results using the Google Forms as easy as possible. Respondents were easily directed to the link thanks to it existing as a WordPress site where they could then use the map on any device. This allowed results to be collected from a wide range of people on a wide range of devices. The results clearly showed the success of the project. As discussed more in depth in the section local knowledge , the interactive map, the layout, increase in information in regards to restaurants, pubs, and historical sites amongst many other things were star performers on the survey. The feedback also suggested a wide recommendation of the map to tourists and saw most local residents themselves saying they learnt something. Further attesting to its quality.

There was many lessons to be learnt regarding the project. These included considerations to take into account when using Google My Maps, considerations when doing interviews to have prepped questions and a quiet area. A wider age range of interviewees was also recommended in order to get different information and perspectives. One, must also if doing a project similar to this take into account visual clustering if choosing to use an interactive map in a built up area. Also the consideration of a transient/ changing population was an issue that was likely faced in Kinsale and this is something that should be considered when undertaking other projects.

After all of this we arrive at what could be said is an appropriate answer for "How can technology be used to collate and disseminate local knowledge to enhance tourism in Kinsale?". For the technology side -even with their issues – an interactive map placed simply and seamlessly on a website. And, in regards to whether local knowledge does even cause enhancement, survey results show that it does. So, to answer the question, interviews and technology - in the form of an interactive map and website can be used to collect information and disseminate it. Which will in turn – as seen with the survey results – lead to an enhancement of the tourism in Kinsale when used. Now, while this is the answer for this area of Ireland it must be noted that this is will act more as a framework. As many areas of the planet, country and county may have different requirements. It must also be noted that for 100% accuracy in these claims this project would have to be repeated in peak tourist season in Kinsale. With tourists also being surveyed.

Now, while the question has been answered another question arises of if it was to be repeated what would be changed? Firstly, the question. It constrained the dissemination and collation of local knowledge to the technological sector. Therefore, our findings were always going to indicate some technological solution. However, what if a better solution lies elsewhere? In another section outside of technology? Technology had to be assessed due to the nature of the course and also for the sake of time. But if time was not an issue and there was no constraints the question should really look like "How best can local knowledge be used to enhance tourism in Kinsale?". This may yield the same results as have been found with this project. But, at least then there will be no possibility of other methods outside of technology being neglected.

Secondly, every business owner and significant local figure would also be brought into the interview pool. This would allow every ounce of knowledge about every business to be extracted for tourists to enjoy. It would also prevent interesting facts about some businesses being missed or overlooked due to bias of the project researcher.

Thirdly, tourists desires would be uncovered. This would allow the project to really meet the criteria of what tourists are looking for in terms of information. Allowing it to really enhance their experience of Kinsale. And allow local knowledge in these areas to be given extra attention. Another big change which was alluded to was getting feedback from actual tourists during peak tourist season. This would likely give us more accurate and therefore valid results. However, this is not to cast dispersions on the existing results. Only a way to make them better.

Lastly, if time was not an issue this projects artefact and website would be built from scratch. While the praises were sang of Google My Maps and Wordpress they did have their drawbacks. The easiest way to eliminate said drawbacks would be to develop the artefact and the website from scratch. Allowing full control of look and feel, features, process, functions and more. While, more time consuming this would ensure that there is no hinderance that would prevent them being their best version. It would also remove any doubts relating to their quality/performance and how this could affect results. Apart from what was mentioned above however there is not much else that would be changed.

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Special thanks:

A special thanks must be given to the following people for their assistance with the project.
James Doherty – Supervisor and First Reader
Shawn Day – Second Reader
Jerome Lordan – Interviewee
Anne-Marie O'Donnell – Interviewee
Ben O'Donnell – Interviewee
Lorraine Walsh – Interviewee
The respondents to the survey as well.

Appendices:

```
import pandas as pd
import matplotlib.pyplot as plt
#Here we are importing the pandas library for the graph and chart creation. We are also importing matplotlib
#incase it is needed.
```

```
[18] df=pd.read_csv("FYPresponses2.csv")
#Here we are simply using the pandas read_csv function to read the CSV file which is made up of responses
#from the google document
```

```
[6] analysis_column1=df.iloc[0:11, 2]
#Simply getting the age range column and its values and assigning it to a variable
count=analysis_column1.value_counts()
#Then getting the count of each age range
count=count.sort_values()
#Then sorting the values so they appear in order of the graph
count.plot.bar(ylabel="# of responses", xlabel="Age Ranges", title="Age Range Spread of Survey",color="green")
#Then using plot.bar() to create the graph. Changing the name of the xlabel the colour of the bars and the title
```

```
Q3_Select= df.iloc[0:11,3]
#Here we are selecting the responses to Question 3.
Q3_Count=Q3_Select.value_counts()
#Then we are getting the count for each of the knowledge levels
Q3_Count=Q3_Count.sort_values()
#And once again sorting the values in order to get them to appear in count order on the graph
Q3_Count.plot.bar(title="Self-Percieved Respondent Knowledge Level",color="#105901")
#Then once again using the pliot.bar() function to make a bar graph and changing its colour and title.
```

```
[8] df2 = pd.DataFrame([[5,6], [4,5], [5,7],
                        [5,6], [1,7],[1,7],[4,5],[5,7],[1,8],[2,5],[4,6]],
                       columns=['Age', 'KnowledgeLevel'])
#Making a new data frame with the numeric values for age and knowledge level
ScatterPlot=df2.plot.scatter(x="Age",y="KnowledgeLevel",c="#1fa1b5", title="Correlation between age and Knowledge Level")
#This numeric system allows us to create a scatter graph to look for correlaton.
#Here we assign the age and knowledge level columns to the x and y axes. Then we change the colour with hexidecimal
#Lastly we then gave it the appropriate title
```

```
piechartinfo_response14=df.iloc[0:11,17]
#Here we are selecting the column and values relating to Question 14
piechartinfo=piechartinfo_response14.value_counts()
#we are assigning it to a variable and getting the counts of the values for question 14
piechartinfo.plot.pie(ylabel="", title="Responses to question 14",legend=True,labeldistance=None)
#here we are using plot.pie() to create a pie chart. We are enabling a legend and have removed the label as their
#is only 1 value
#The reason for the pie chart is to emphasize visually the 100% response to question14.
```

```
piechartinfo_response10=df.iloc[0:11,10]
#Using iloc we select the values relating to responses to question 10.
piechartinfo_response10 = piechartinfo_response10.value_counts()
#here again getting the value counts
piechartinfo_response10.plot.pie(ylabel="", title="Q10 Responses",legend=True,labeldistance=None,autopct = "%2.f%%",colors=['green','red','blue'])
#creating a pie chart again with green and red to represent the positive and negative results
#using the %2.f%% to get the two significant figures before the decimal.
#This is so it looks cleaner and more sleek.
```

```
piechartinfo_response8=df.iloc[0:11,8]
#Selecting the column and values relating to reponses for Question8
piechartinfo_response8 = piechartinfo_response8.value_counts()
#Here getting the counts for each value and reassigning it to the existing variable
piechartinfo_response8.plot.pie(ylabel="", title="Q8 Responses",legend=True,labeldistance=None,autopct = "%2.f%%",colors=['lightblue','blue','green'])
#Creating a pie chart to represent the data. We again enable percentages and the legend to make it more readable.
#Then we changed the colours to make the three different responses easier to differentiete between and make them
#more visually appealing
```

```
piechartinfo_response15=df.iloc[0:11,14]
#lastly we are creating a pie chart for reponses to question 15. Again this is for visual representation of the 100%.
piechartinfo_response15 = piechartinfo_response15.value_counts()
#above we then are counting the values.
piechartinfo_response15.plot.pie(ylabel="", title="Q15 Responses",legend=True,labeldistance=None,autopct = "%2.f%%",colors=['green','purple','blue'])
#Then we simply make the graph keeping the 100% as its good for extra visual emphasis
#But disabling labels and enabling the legend to ensure the cleaner look.
```

```
piechartinfo_response12=df.iloc[0:11,12]
#again retreiving the values relating to question 12 responses and assigning them to a variable.
piechartinfo_response12 = piechartinfo_response12.value_counts()
#then once again getting the counts for these values
piechartinfo_response12.plot.pie(ylabel="", title="Q12 Responses",legend=True,labeldistance=None,autopct = "%2.f%%",colors=['green','lightblue','blue'])
#Again creating a pie chart for question 12. Its important to note a pie chart was chosen as it represent total
#values of a whole. Different colours were used than for the graph for question 10 so there was no confusion between
#the two
```

```
piechartinfo_response4=df.iloc[0:11,4]
#Here we are selecting the columns and values relating to Question 4 and its multiple responses
piechartinfo_response4 = piechartinfo_response4.value_counts()
#Again we are getting the counts for the values
piechartinfo_response4.plot.pie(ylabel="", title="Q4 Responses",legend=True,labeldistance=None,autopct = "%2.f%%",colors=['red','green'])
#Here we are using the plot.pie() functiong. This time however we remove the label but enable percpetanges.
#We also alter the colours so that red is associated with now and green with yes.
#This is to make it extremely easy to differentiate betweent the positive and negative responses.
```

```
[11] piechartinfo_response6=df.iloc[0:11,6]
#Here we are selecting the columns and values relating to Question 6 and its responses
piechartinfo_response6= piechartinfo_response6.value_counts()
#Again we are getting the counts for the values
piechartinfo_response6.plot.pie(ylabel="", title="Q6 Responses",legend=True,labeldistance=None)
#And then we are putting into a pie chart again for the visual effect of the 100% response. Again also removing
#labels and enabling the legend for a cleaner more sleek look.
```