DONOUGHMORE: TRACING OUR PAST, SHAPING OUR FUTURE

Final Year Project Report

ucc

Dermot Cremin, 120472812
BA Digital Humanities & Information Technology

Contents

Abstract: 3
Organisation of Report. 4
Chapter 1 Introduction 5
Chapter 2 Literature Review 8
Introduction 8
Background 8
Search strategy 9
Digital History Trails 9
Archiving Local History 10
Digital Tools and Technologies 12
Summary 15
Recommendations 15
Environmental Scan: 16
Chapter 3 Tools 18
Introduction: 18
GoogleMyMap: 18
Reclaim Hosting: 19
Efficacy of the Tools Used: 21
Chapter 4 Methods 22
Introduction: 22
Responsive Design 22
Colour Scheme of the Webpages and Mapping Pins 23
Accessible to All User Competency Levels 24
Chapter 5 Implementation 27
Data Collection and Curation: 27
Interactive Scatter Plot: 28
Click to Go Back Up Button: 30
Google Translate Button: 31
Chapter 6 Analysis, Reflection and Conclusion 34
Introduction 34
Literature Review and Environmental Scan Learnings 34
Construction and Design Lessons 35

How the Tech Responded 36
Did the Project Achieve What It Set Out To? 37
Surprises That Arose 38
Human Implications 39
Final Analysis and Reflections 40
Conclusion 40
Bibliography 43

Abstract:

The cultural and historical rootedness of Irish rural villages is on the brink of extinction and with that comes a risk of erosion of our state's history, cultural identity and so much more.

This project seeks to digitally archive and preserve the captivating history of a lesser-known Irish rural town called Donoughmore, located in County Cork, Southern Ireland. The project further seeks to Interact with the immersive narrative of Donoughmore, as the project's digital artefact unveils its profound importance and offers insights into the invaluable role such towns play in Ireland's cultural landscape.

With an eye toward education and outreach with this project, the aim is to make this historical interactive resource accessible to schools, researchers, and the public, preserving and celebrating the history of Donoughmore while promoting a deeper appreciation for its history and the spirit of its community.

This project embodies the complex nature of interdisciplinary collaboration drawing on the discipline and tools of Digital Humanities and Information Technology (DHIT). It does this by combining historical research, web development, community engagement, computer science, interactive mapping, data visualisation and finally looking to bridge the gap between technology and humanity.

Overall, this project aims to link our past and future in a way that celebrates the legacy our rural towns have while also keeping it at the forefront of our minds as we move through our increasingly digital future.

Organisation of Report.

This Final Year Project Report is presented in six chapters. Chapter 1 introduces the project as well as providing the research question that guided the project. Chapter 2 presents a literature review as well as an environmental scan. The tools used in the project are presented in Chapter 3. Chapter 4 outlines the methods used in developing the archive while Chapter 5 presents the implementation of the project. The report culminates with Chapter 6 providing an analysis, recommendations, and conclusion from the project.

Chapter 1 Introduction

"Donoughmore; Tracing Our Past, Shaping Our Future" is a digital archive aimed at preserving and celebrating the history of a rural Irish village in County Cork. The idea for this final year project came from an awareness of the village's history and how dispersed this content currently is. After talking to neighbours and other members of the community, a common interest quickly emerged about learning the history of our village as well as a concern about the accessibility of local knowledge. This is where the idea of an open-access digital archive of Donoughmore's most important parts emerged, with a special emphasis on making it accessible and comprehensive for all members of the community.

Before this project got underway, the majority of information about Donoughmore was in hard-copy books or leaflets known only to the local historians of the parish and the local Historical Society. The need to facilitate easy access to this information by the wider village and parish community quickly became apparent. Parishioners expressed a desire for a deeper understanding of the village's / parish history and how it became the Donoughmore we all know at present. It was suggested this would deepen the relationship each member of the community has with their home but also how we view and interact with other members of the community. It was posited that by increasing local knowledge of the parish's history, it would result in improving education, awareness, and the sociological perspectives of Donoughmore's past. It became clear that a potential synergy existed between parishioners' interest and the discipline of Digital Humanities and IT. The intertwining of IT and humanities created the perfect platform to promote this project but more importantly to promote Donoughmore whilst giving an opportunity to display the skills developed by the author in this undergraduate degree.

The scope of this project initially focused on raising awareness of Donoughmore's past. However, it quickly emerged that the act of preserving the history and safeguarding it for future generations was vital. Unfortunately, much of the data or information pertaining to this local history is caught up in the memory of the residents and their stories as well as books in the backs of cupboards and attics. The act of bringing this information online acts as a barrier to any further erosion of Donoughmore's history as it is currently getting lost between generations. This is a vital aspect of

our sense of belonging within the community but also extremely important to this country's cultural identity. It was villages like Donoughmore that helped shape Ireland as a State and they are being quickly forgotten in this ever-increasing digital age.

Merging modern-day digital tools and methods with the analog style of this village's history is perfect for bringing Donoughmore to the forefront of both our minds and screens whilst also showcasing just how effectively we can keep our rural communities alive. The digital preservation of Donoughmore's artefacts can act as a cultural safeguard for the parish and its unique place in Irish history. Archiving this history through digital means will also benefit previous and past residents of Donoughmore who throughout the years have had to emigrate and leave this community. Prior to the completion of this project, they would have had to rely solely on memory and anecdotes to keep Donoughmore an active presence in their lives. However, the development of this project now means they have a place to turn to where they can read, learn, and digitally browse their own slice of home, irrespective of their global location. This is an ever-present issue facing Irish society and hopefully one made easier to deal with for the residents of Donoughmore with the presence of this archive and the revival of their hometown, by merging the human aspects of the village with the digital methods and tools that are so readily available to us nowadays.

A poem in a local History book that perfectly encapsulates the emotional angst this could ease in the hearts of our ex-pats:

"In a foreign country tonight
I'm thinking of the days I spent in my Irish home
And my mind oft wanders to the hills and valleys in Donoughmore
To the glens and boreens in Donoughmore
…
So here I am in a foreign country
Three thousand miles from my Irish home
But I'll never forget the scenes of childhood
And the scenes so dear around Donoughmore"

(Excerpt from "Donoughmore Remembers" P.77)

The complex nature of Irish history and its many cultural nuances makes studying this area all-consuming. Historically and culturally, every parish in Ireland is multi-layered which results in very interesting but time-consuming peeling back many layers of information. The scope of the project was also limited by the time available. Nevertheless, and directly as a consequence of completing a Bachelor's Degree in Digital Humanities and Information Technology, development of a digital archive using my knowledge of digital tools and digital archiving presented me with an opportunity to develop a digital archive of Donoughmore as the preferred method of cultural preservation, and historical safeguarding. This involved building a digital artefact reflecting my skills in website and archive building. It also involved identification, selection, and screening of pertinent data sources.

The **research question** that has guided development of this digital artifact and this final-year project was:

What is the most effective way that we can vitalise and preserve rural Irish history in a way that is accessible for all to interact with, learn, and explore digitally?

The **aim** of the project was to:

1. Develop a digital artefact that reflects the pertinent socio historical aspects of Donoughmore Parish.
2. Employ website and archiving building skills to present an object that represents Donoughmore's past and present features.

The project report will now move on to Chapter 2 which presents a literature review followed by an environmental scan.

Chapter 2 Literature Review

Introduction. This literature review aims to critically analyse the literature underpinning the use of digital tools in online archives, digital trails, and their ability to preserve history. The review opens by providing the reader with a background to the topic. It moves on to provide a synthesis of the papers reviewed as well as an overall discussion of the findings. It closes by providing a summary, recommendations, and an environmental scan.

Background: In this increasingly digital age, society is constantly exposed to new innovative digital tools that seek to improve our current way of life. However, the introduction of these 'new' tools frequently contributes to society forgetting a previous way of life. This has affected the disciplines of geography and history contributing to data losses and lacks in cultural preservation when in theory it has never been easier. Digital mapping, by definition, is performed through some kind of digital interface, typically a computer system with a graphical user interface (GUI) (Smith, 2011). At the time of this definition, digital mapping was still relatively new in terms of the methods that came before. However, we can see that nowadays Digital mapping is now ubiquitous and an increasing amount of geodata is being created by all sectors. Despite this explosion, few data are preserved and, as a result, a fundamental source of scientific and cultural heritage, culture, and knowledge, is very much at risk of not being captured (Lauriault and Taylor, 2019).

However, with the rapid evolution of digital technology in our modern consumerist world we can see some hopeful improvements to historic preservation with these tools. In 2022, Marcoux & Leifeste discussed the current and future states of knowledge in this area. They concluded that as digital technologies improve in accuracy, resolution and user-friendliness it is easy to understand why they are quietly becoming standard complements to traditional historic preservation methods (Marcoux and Leifeste, 2022).

However, while a large body of literature exists on the broad application of digital tools in geography and history, there is a much lesser body of research on the issues that impinge on the use of digital tools in geography viewing through the lens of historical and cultural preservation.

Search strategy**:** A search of internet resources using Google and Google Scholar was conducted in January 2024 using the search terms “Digital Archives”, “GIS Mapping” and “Digital History”. Papers were included if they were research based with the data pertaining to digital archives, GIS mapping or digital history. Papers were excluded if they were not written in English, were conference proceedings, were opinion pieces, dissertations or editorials, or were unavailable in full text despite contacting the authors. Following a review of the most relevant resources found, seven were selected for in-depth review. Three themes emerged from that review: Digital History Trails, Archiving Local History, and Digital Tools and Technologies. A review of resources on Digital History Trails is presented first.

Digital History Trails**:** A Digital Historic Trail is an avenue of cultural preservation and inclusion by putting the user at the forefront of the experience through their tech device and has seen a skyrocket in popularity over the last few years. They usually come in the form of apps, scannable and followable QR codes or even audio trails for a more immersive experience. Fáilte Ireland conducted a Mobile Trends study in 2017 and found that 92% of people used their own devices to look up or research information while in Ireland (Fáilte Ireland, 2017). This statistic perfectly encapsulates how vitally important it is for us to take this avenue of digital tourism more seriously as it can synergistically benefit both tourism industries but also the fields of history and geography by preserving their information forever through accessible digital means.

The concept of digital mapping as a form of cultural and historic preservation is relatively new but already, we are seeing how important it is becoming in today’s society. The presence of these digital tools and methods makes the task of archiving as a means of permanent preservation a reality and a very sustainable one at that. Whether this be through digital mapping, archiving or trail making it is becoming increasingly popular in these communities and future proofs these vital historic moments for the rest of the world. One such example of this is the Virtual Paul’s Cross Project.

"The Virtual Paul's Cross Project" is a noteworthy digital archive that digitally reconstructs the historical and cultural environment of Paul's Cross in early modern London (https://vpcross.chass.ncsu.edu/). David Hill and John Wall led a team of scholars from NC State University and other institutions like King's College London and Salford University, the project has earned acclaim for its commitment to historical accuracy and scholarly precision. Last updated

in 2013, the website provides a user-friendly experience, featuring an intuitive 3D model of Paul's Cross as well as audio and interactive elements that engage users effectively. Focusing on objectivity, the project refrains from subjective biases, maintaining a scholarly and balanced presentation. Its value extends to a broad audience, including scholars, historians, and those interested in early modern history. Beyond the architectural reconstruction, the project explores social, religious, and architectural contexts, offering users a comprehensive understanding of the historical environment. With its transparent version history and scholarly references, "The Virtual Paul's Cross Project" emerges as a credible resource for exploring the socio-cultural dynamics of early modern London. Its digital approach to historical reconstruction aligns seamlessly with the objectives of modern scholarship, making it a significant contribution to the academic discourse. Overall, this project is a valuable asset for scholars and enthusiasts seeking to engage with the historical narratives surrounding Paul's Cross in the digital age.

A more history-focused approach was taken by Deans et Al (2016) made a significant contribution to the fields of both history and digital humanities by setting out to map the work of Thomas Pennant and his cartographing tours. This project was undertaken to provide scholars and the public with significant new resources: a collection of previously unpublished manuscript tours of Scotland and Wales, and the first dedicated edition and indexing of Thomas Pennant's extensive but scattered correspondence, all to be made freely available through the Curious Traveler's website (https://curioustravellers.ac.uk/en/) (Deans and Leask, 2016). In doing so this work successfully recovers a sense of both Pennant's contemporary significance and his influence on subsequent travelers and writers while demonstrating by using digital tools to preserve the legacy that was at risk of being forgotten. These two projects capture perfectly the importance of mixing digital tools and methods with historic materials and how impactful this can be in revitalizing the material.

The paper now moves on to a review of archiving local history sources.

Archiving Local History**:** Cambridge Dictionary defines an archive as a collection of historical records relating to a place, organization, or family (Cambridge Dictionary, 2020). Historical Archives have been around for centuries but the increased emphasis on local archiving over the past couple of decades is something quite new to the fields of Digital Humanities and History. This

new wave of societal and academic interest in the topic of archiving local history has led to the creation of lots of important and interesting work being carried out spanning across multiple topics.

An example of such work was published in 2015; a digital resource that is keeping local history alive is the Baltimore Uprising Projects, a collaborative digital project that records the events following Freddie Gray's death (https://baltimoreuprising2015.org/home). This project spearheaded by Denise D. Meringolo the director of the Department of Public History at UMBC as well as the collaboration of academics, activists, and community members, offers a variety of viewpoints that enhance their credibility and genuineness. The content is always current and relevant due to regular updates and a strong dedication to accuracy, which reflects the ongoing nature of the work of local history archiving. This project represents the different facets of Baltimore's local history by addressing a wide range of subjects such as historical backdrop, structural challenges, community responses, and what transpired after the events.

This digital archive, which is intended for a variety of audiences such as academics and the general public, does a fantastic job of striking a balance between comprehensive research and public accessibility. They make learning about local history engaging and lively by utilising elements such as interactive features and images. For both scholars and people interested in local history, the projects' user-friendly layout and obvious references demonstrate their thoroughness and dependability. The Baltimore Uprising Projects are a prime illustration of how cooperation, digital tools, and modern archiving methods can come together to preserve the nuanced narratives of a momentous local event for present and future generations when it comes to local history preservation. (Baltimore Archive, 2015)

Another example of the importance of digitally archiving local history and including the community members in the process is the Worthington Memory Archive on the Worthington Libraries website. It has tens of thousands of records spanning hundreds of years, including digitized photographs and documents, indexed newspaper articles, burial records from Worthington's three cemeteries, historic artifacts, audio, and video.

The Worthington Memory Archive, a collective digital initiative preserving the history of Worthington, is a valuable repository for local historical documentation (http://www.worthingtonmemory.org/). Curated and produced by a team of contributors, including residents, historians, and community members, the archive offers a diverse and authentic portrayal

of the town's past. Consistent updates and a strong commitment to accuracy highlight the ongoing nature of the archival process, ensuring the content remains current and relevant for those interested in Worthington's history. Covering a range of topics, from historical events to community life, the archive provides a comprehensive snapshot of Worthington's local history. Designed with a broad audience in mind, the archive balances intellectual depth and usability, making it accessible to researchers as well as members of the community. With the use of interactive elements and visuals, the archive takes visitors on a dynamic journey through Worthington's past, strengthening their bond with the community's heritage. The archive is a trustworthy resource for anyone looking for information about the historical evolution of the town because of its unambiguous layout and open referencing. The Worthington Memory Archive is a prime example of inclusive and cooperative efforts in local history preservation, employing technology to preserve and disseminate the rich tapestry of Worthington's past for both current and future generations.

The conversation around community participation in archiving methods represents a significant turn away from exclusivity and towards group authoring. In addition to filling in historical gaps, this participative approach gives communities the capacity to recover their stories and cultural legacy. Real-world initiatives like the Baltimore Uprising Projects and the Worthington Memory Archive serve as excellent examples of how community involvement enhances our knowledge of local history and makes it deeper and more thorough. By enhancing accessibility through the use of digital platforms, these projects enable communities to actively participate in the preservation of their historical heritage. By including interactive features and multimedia components, local histories become more approachable and captivating for a wider range of users. This meeting point of digital tools and community involvement paves the way for a critical analysis of how technology affects the neutrality, inclusivity, and accuracy of community-driven archival projects.

A review of digital tools and technologies is presented next.

Digital Tools and Technologies: Digital tools and methods have played a vital and very interesting role in the landscape of digital trails. They have helped the field expand and become more relevant and accessible than ever before. These tools help shape the way in which we interact with these trails and help us maximize the benefit they can have on their users. The digital methods make the trails easy to understand and comprehend while also figuring out ways for us to contribute and

improve from a user end. The paper will now move on to a review of a specific digital tool and methodology.

One such example of these digital tools is Historypin, a free-to-use online website. This digital tool Historypin is a digital, user-generated archive of historical photos, videos, audio recordings, and personal recollections. Users are able to use the location and date of their content to "pin" it to Google Maps. This free-to-use tool opens up so many possibilities to the world of digital archiving and also acts as an inspirational asset to spur the general public into having an interest in the topics they are built upon. However, the onus should not be on individual contributors but rather on institutions and libraries to push this into the psyche of the public. Mark Baggett and Rabia Gibbs backed this up in an article from 2014, despite the platforms' established user base and enhanced functionality, Historypin and Pinterest are not adequate substitutions to traditional library platforms or formal digitization workflows (Baggett and Gibbs, 2014). Their article exemplifies the need for big institutions to step up to the plate in terms of bringing tools like this on board for the betterment of their archives but also to increase public knowledge about the tools and possibilities there are to help contribute.

Google launched Google Earth Outreach as a project to provide nonprofits and organisations with the tools they need to use geospatial technology to address social and environmental challenges. With the use of the program's mapping toolkit, which includes Google Earth and Google Earth Engine, users may efficiently visualise and discuss complicated data. Google Earth Outreach helps communities, NGOs, and indigenous organisations create powerful visuals for advocacy and storytelling by utilising geographical data and satellite imagery. The initiative's main goal is to solve global issues including social injustice and climate change. Google Earth Outreach fosters a dynamic convergence of technology and philanthropy to generate meaningful change by enhancing organisations' capacity to employ geospatial technology for beneficial societal impact through training and collaboration.

A comprehensive approach is necessary to comprehend digital trails, and case studies are essential for clarifying the nuances involved in the preservation, interpretation, and use of digital data. Hatcher et al described case studies to be stories or scenarios, often in narrative form, created and used as a tool for analysis and discussion. (Hatcher et al, 2018). In a variety of fields, such as historical preservation, urban planning, and environmental monitoring, case studies provide

unique contextual insights into the conception, development, and effects of digital trails. In addition, case studies offer chances for theoretical confirmation and improvement in the context of digital trail studies. Scholars can test theories, spot trends, and improve conceptual models by using case studies to anchor theoretical frameworks in first-hand observations and real-world situations. By means of this repeated process of theory construction and validation, theoretical constructs become more robust and applicable, leading to an advancement in our understanding of digital trails and their social ramifications.

The Indigenous Digital Archive Project (IDAP) serves as a prime outline of the fundamental significance of case studies in comprehending digital trails (https://mukurtu.org/). Starting in 2015, IDAP typifies the complex interaction between digital technology, local community association, and the safeguarding of indigenous culture. Encouraged by indigenous communities in collaboration with Washington State University, alongside continued help and support from technologists and the Latin Americanist Research Resources Project (LARRP), IDAP epitomizes how digital archives can be the perfect model to rediscover, preserve, and spread indigenous culture for broader society and academia alike.

The improvement and advancement of IDAP have been reported through numerous case studies, giving scholars with insights into the complex dynamics of indigenous social conservation in this computerized age. These case studies highlight the significance of digital archives in protecting indigenous societies and the passing on of this information to the following generation within their local communities, while too shedding light on the opportunities and challenges related with digitizing verbal traditions, endangered languages, and cultural artefacts through an open and accessible medium.

By critically looking into the Indigenous Digital Archive Project as a case study, analysts can get a more profound understanding of the broader implications of digital archives for indigenous social independence, cultural heritage security as well as local community engagement. This case study highlights the critical addition of community-driven initiatives in forming the discourse and practice of digital conservation, advertising valuable experiences for scholars and policymakers engaged in digital heritage activities around the world (Indigenous Digital Archive Project, 2015).

The Digital Archive of Latin American and Caribbean Ephemera epitomizes the significance of case studies in understanding digital trails (https://lae.princeton.edu/about?locale=en).

Produced in collaboration with indigenous communities, academic institutions, technologists, and the Latin Americanist Research Resources Project (LARRP), this archive exhibits how digital trails can restore, preserve, and spread cultural heritage. Through various case studies, researchers gain experiences into the complexities of cultural preservation within the digital era, highlighting the archive's part in safeguarding indigenous cultures and encouraging the passing of information to the following generations. These studies also shed light on the challenges of digitizing ephemeral materials as well as underscoring the archive's importance as an outlet for cultural memory and expression.

Looking at the Digital Archive of Latin American and Caribbean Ephemera as a case study develops researchers' understanding of digital trails' broader implications for cultural autonomy, heritage preservation, and community engagement. This examination underscores the essential role of community-driven activities in forming digital preservation practices, offering valuable experiences for global digital heritage initiatives (Princeton College Library, 2015).

An overall summary and recommendations from the literature reviewed is now presented.

Summary**:** In all papers, case studies, and archives critically reviewed there was a general consensus that bridging the gap between historic archives and local community contribution inevitably lead to a better-quality archive that was more accessible and usable for both the general public and researchers that may have interest in the topic/place archived. The efficacy of the digital archive produced when modern-day digital tools and methods were used as well as academic and community input of knowledge ultimately lead to the digital archive being much more of a success than its predecessors that were created more traditionally. Moreover, when the digital archive was seen as an online resource for cultural safeguarding and ensuring that the information was not going to be lost through the passing on of older generations it ensured a much more humanitarian approach was taken and led to a much better archive outcome.

Recommendations**:** The findings from this literature review need to be interpreted with caution due to the heterogeneity of methods used and possible lack of generalizability of findings. However, the strength of this paper is in its detailed review of multifaceted forms of both digital archives and effective methods used. Albeit with a relatively small sample size used. Therefore, it provides a useful platform for further reviews to be conducted in this field.

An immediate recommendation is that historians and academics conducting and producing historic archives should do so with the help of technicians familiar with the digital tools and methods needed to create an effective and accessible resource that both the world of academia and broader society can access alike. The help can only benefit this avenue of digital archive creation and the contribution of the community involved as informal subject matter experts in the topics in question.

The next part of this Chapter presents an Environmental Scan specifically pertaining to the project.

Environmental Scan:

The purpose of this environmental scan is to add context and a wider background of information to this final year project by building on what was covered and recommended in the Literature Review. The scope of this environmental scan extends similar History projects to Digital Tools and methods that were used as a vehicle of knowledge to carry out the building section of this final year project. Viewed collectively, one might argue the main contributions Digital History Trails, Archiving Local History, and Digital Tools and Technologies make is that they provide users with access to a broader source of information about an event, period of time, or people using text, maps, video or audio files accessed through the internet.

One such example of the broader source of knowledge they provide about an event is the National Archives' "Beyond 2022: Ireland's Virtual Record Treasury" project (https://www.nationalarchives.ie/article/beyond-2022-irelands-virtual-record-treasury/). This project aims to create a virtual reconstruction of the Record Treasury of the Public Record Office of Ireland, which was destroyed during the Civil War in June 1922. Trinity College Dublin coordinates the project in collaboration with the National Archives, the (UK) National Archive, the Irish Manuscripts Commission, and the Public Record Office of Northern Ireland. It is an online historical resource teaching the public about the inventory of materials and architecture of the building before it was destroyed in 1922. It is free to access and uses informative and accessible language throughout. This brings a new lease of life to this iconic figure in a tumultuous time in our states birth. The innovative nature and ease of access were used as an academic muse in inspiring the idea for this final-year project. The amalgamation of academic sources and interactive learning made this piece a seminal digital archive when thinking of how to construct this Final Year Project digital artefact.

However, after analysing and reviewing these Irish-made digital archives through the metrics learned throughout this undergraduate study in Digital Humanities and IT, it was quite noticeable how they were lacking in quality and in the ability to engage their user. This is what sparked the rationale behind this Final Year Project. It looks to bridge the digital with the humanity while also preserving local history in a way that brings the user on both a digital trail but also a story of the parish's time from yesteryears. With a special eye on user accessibility, this project intends to be comprehensible for all users regardless of digital literacy and academic background.

A notable and somewhat similar project was created in Kilorglin County Kerry whereby the local committee created a digital trail through the use of scannable QR codes and website pages (*https://killorglinarchives.com)*. This project incorporates the ideals put in place by the Kilorglin History Society but aims to push the limit of CS tools and methods while keeping a strong link to the human aspect of the project topic. The subject matter inspiration was built from this project among others as discussed in the Literature Review as well as some modules that were studied in the second year of this course. This helped instill a big interest in using technology to help solve human problems and there is nothing more human than our history. This project hopes to achieve and demonstrate how digital tools and methods can be applied to help curate, preserve, and protect our culture and history on small local scales but also much larger international scales.

The report now moves to Chapter 3 which discusses the methods and tools involved in building the digital artefact and the rationale for these choices.

Chapter 3 Tools

Introduction:

This final year project was influenced by the current digital archiving projects that are already being carried out and also to address their gaps. The literature review identified similar work to this project as well as the current popularity of digital archiving. This project was not only looking to digitally archive Donoughmore's history but also looking to make this knowledge accessible to all, immersive through the use of digital maps while also taking into consideration the wide variety of users who will interact with this digital artifact. An emphasis was put on usability, design, immersion and easily comprehended content. All too often these projects ignore the full scope of their intended audience. This digital artefact sought to avoid creating that gap.

In true Digital humanities form, this project not only looks to bridge the gap between the digital and humanities in society but also the gap in digital literacy and make it as effective and enjoyable as possible to all levels of users. The scope of this project is rooted in education and the world of academia but I would be doing the subject matter of my artefact and the teachings I have received throughout my undergrad a disservice by not keeping in mind the full breadth of non-academic users of this artefact. This helped guide the decision-making process in the digital tools that were chosen to help build and achieve the goal of answering my research question with this digital artefact. As a result of these reflections and readings, two main tools quickly emerged as the perfect pairing for what this project was looking to achieve. They were "GoogleMyMap" and Reclaim Hosting.

GoogleMyMap:

Many of the tools available for making digital maps were behind a paywall so they were ruled out on the basis of staying true to open access. However, the majority of free map-making tools lacked a lot of usability factors while also not being very formattable when it came to embedding these maps on my website. Originally, the artefact was being built around the free version of a digital mapping tool called "ArcGIS StoryMaps" as on the surface it looked like a perfect blend of mapping tools and UX design. However, upon scratching the surface of the inner workings with this tool I found that it was lacking the mouldability and CS capabilities of being both a mapping tool but also being able to be made into exactly what was needed to portray the info that was involved in this artefact.

After some more research into other digital mapping tools that had many likenesses to StoryMaps, it became apparent that the digital tool that was perfect for this project was indeed “GoogleMyMaps”. There were multiple reasons for this choice, but the main ones were the fact it could be exported in many formats depending on what the use case was and also it gave me the freedom to quickly make multiple maps to enhance the importance of the information being portrayed. There was no paywall and it had extensive video tutorials and very helpful customer care support. This tool was ideal for the curation of my digital artefact.

A study was conducted in 2019 in Indonesia that further emphasises the quality of this digital tool and its importance in the world of digital mapping, the paper looks at evaluating the effectiveness of blending learning in a heritage conservation course by using GoogleMyMaps. “The overall finding shows that cultural mapping, as the first-hand information gathering of a heritage district gives the student understanding which then allows the students not only to appreciate the importance of heritage but also having empathy that heritage is not only about artifacts or architecture (tangible assets) but more about people who live in it” (Sholihah & Widodo, 2018). This paper shares some similarities with what this final year project is looking to achieve but moreover what this paper shows is just how useful this tool can be in portraying both the cultural information that is at risk of being lost and the importance of protecting it by archiving it digitally.

Reclaim Hosting:

The second digital tool used in this digital artefact was Reclaim Hosting. Reclaim Hosting is a web hosting company focused on supporting the education sector (Zafaripour, 2020). It offers a platform for individuals and organisations to create and manage websites, blogs, and digital projects. Reclaim Hosting's services are designed to be user-friendly and accessible. I also have prior experience using this tool from both my professional life and in the first and second years of this undergraduate programme. This digital tool was also behind a paywall but that is to be expected with web hosting companies. The tool's broad range of applications in its software library, which includes WordPress that was used in the site for this digital artefact, makes it an industry-leading digital tool and a perfect fit for this final-year project.

This tool allows for complete control when building websites and digital projects, it was the perfect tool for this artefact because of this. The tool also has a very good support line that can add knowledge to any query very quickly. The use of this tool in building a website as part of my

artefact looks to blend the digital mapping and curation skills I have gathered while also showing how far UX/UI design can take an idea and how this should and could be at the forefront of all projects like this in the future. As we progress further into this digital age, it should be the first thought to cross our minds when projects like this begin but unfortunately, it is an aspect that is all too commonly forgotten about. This is where the project takes on the perfect embodiment of the interdisciplinary nature of Digital Humanities. It blends the human nuanced history of a culturally rich rural Irish town and allows that to be celebrated and preserved online. An increasingly important form of historic archiving.

However, this is not a history project and that is another reason why I chose this digital tool. Reclaim Hosting allowed me to show off the CS skills that I have learned over the last four years. Skills such as HTML and CSS coding, an increased understanding of how to design a website and implement different forms of media into it effectively while also having a deep appreciation for the humanitarian nature of the content I was putting into this site.

The overall look and feel of this artefact was designed to engage the user and be easy on the eye. This was done by employing a whole host of digital methods, the most important of which will be discussed in the methods section of this write-up, such as using captions and alt text to ensure the accessibility of the site is the same for every user. However, there were also multiple stylistic decisions made to benefit the user and keep them engaged. These methods are a vital component of this artefact as it illustrates the skills and learning I have acquired over the course of this degree programme. The bulk of these methods were enhanced due to the presence of WordPress on the site. Originally, it only supported the creation and publication of blogs but over the years "WordPress has grown into the ultimate content management system for managing nearly every type of website; from simple brochure, to ecommerce, to advanced 'application' like websites" (Price, 2021). WordPress acted as another digital tool to enhance both the look and feel of my website. It allowed the digital artefact to take on a life of its own. This was because of the wide variety of options and themes that WordPress gives you. Using this digital tool through the platform of Reclaim Hosting proved to be the perfect amalgamation of tools to allow this site to be accessible to every user without compromising stylistically.

Efficacy of the Tools Used:

These three digital tools were chosen because they were perfectly apt at giving this project the platform to be conveyed through a digital artefact. The nature of this artifact and the use of digital mapping aswell as website design to promote the use of digital tools in history archives and preservation made the decision quite clear. GoogleMyMaps paired with the wide usability of Reclaim Hosting offered a dynamic symbiotic duo that helped in the creation and design of this digital archive. These foundations were then emphasised and improved hugely by the utilisation of WordPress and its wide variety of design capabilities. They were the ideal combination of digital tools to help answer this final year project research question and create a digital artefact to do so.

The report now moves to Chapter 4 presenting a description and exploration of the methods involved in the project.

Chapter 4 Methods

Introduction:

The digital methods employed in the building of the digital artifact for this final year project were chosen to emphasise the skills that have been learned throughout this degree programme while also ensuring that usability and interface design remained a high priority. An emphasis was put on this from the very start of the project, as it was clear that the audience for this type of work could extend beyond that of the Digital Humanities Academic community. This artefact was designed for all users on all devices and specific digital methods were undertaken to fulfill this obligation. This artefact seeks to not only inform users about Donoughmore's history but to also celebrate it, this would prove to be a hypocritical objective if the design and curation process did not take all users into account. This avenue of thinking was a central part of this artefact from day one as it embodies the teachings of Digital Humanities, placing ourselves at the crossroads of the Digital and the humanities. Consequently, making it a digital artefact perfectly poised in attempting to make crossing these roads and intertwining them into each other seem effortless.

Responsive Design

The first digital method that was undertaken was responsive design. Also known as elastic design, since 2004 this term has adopted a more specific meaning of adapting the site's design to suit the user's device of choice typically based on screen size but also other capabilities (Ward, 2017). This method was the hardest to employ when embedding the interactive maps in the archives web pages with HTML. Extra lines of HTML code had to be added in order for these maps to work on smaller device screens such as tablets and smartphones. This allows each user to have the same experience no matter the device they have access to, which in most of the population's case is a smartphone. According to findings reported by the Central Statistics Office in 2023, nearly all (96%) internet users used their smartphone or mobile phone to access the internet while over six in ten (62%) also used their laptop to go online (CSO, 2023).

The special emphasis on accessibility and responsive design does not stop with the interactive maps. When creating this digital artefact every possible precaution was taken to give all devices the best user experience. This came to fruition in the project when it came to choosing what multimedia was being used and how. Every image and embedded piece of media is viewable,

playable, and has equal access on all devices. This was a crucial aspect of the UI design and often resulted in some tough decisions being made to sacrifice an image or theme over the general usability of the site. For example, there are a lot of old historic photos of Donoughmore's past that had to remain unused due to the formats they came in and how they would not be viewable on smaller screen devices.

This can also be linked back to a school of thought within Responsive Design called Progressive Enhancement which is a more traditional principle where your primary focus is on making the site content available to all users, however simple their device or slow their connection (Ward, 2017). This is a vital school of thought when thinking about how and who is going to be using this digital artefact. I can speak from experience as an online user with a rural Irish internet connection and a slightly older smartphone that not every website is tailored to these users. The special emphasis put on this digital method and accessibility ensures that no user feels excluded when trying to access Donoughmore's history.

Colour Scheme of the Webpages and Mapping Pins

The choice of colour scheme (black and white) for this digital artefact reflects two important elements. Firstly, these are the official sporting parish colours and secondly these two colours are receptive to people who are colour blind. The choice to add a neutral cream colour was to balance out the two main colours and give a clean, modern aesthetic to this digital archive. This choice was also heavily influenced by the teachings of the "Handbook of Computer-Human Interaction" which recommends using a maximum of five colours (plus or minus two) different colours in your design (Helander, 2014). In doing so, the digital artefact was made easier on the user's eye while also not taking away from the content being discussed.

The colouring of the interactive map pins was also a conscious decision in favour of accessibility and UX design. The colours that were chosen not only make the pins stand out on their maps but also evoke human reactions to them. For example, any points of interest that have been mapped in this digital artefact that are related to religion are coloured purple as it is widely considered a regal colour. Community amenity pins such as a community centre were coloured yellow to signify warmth, and positivity to emphasise a sense of community. The decision was made to colour the pins of historic sites in the interactive maps orange as it evokes a sense of cultural vibrancy and is

also a widely used colour for historic and cultural sites. Orange can also represent a vital force which in the case of the sites I was mapping perfectly encapsulated they're previous uses. The colour blue was used on pins that represented places of education, as it is a colour that signifies wisdom, introspection and intelligence (Zammito, 2005). The decision to use green to represent the sporting team's locations in Donoughmore was made to symbolize nature, health, and an overall positive colour. Finally, the transport pins are coloured grey as it is a colour that symbolizes neutrality, and practicality but also consistency. These colour codes were decided on based on multiple factors not only just based on the emotions they evoke in the user. Although that was a very important theme in the colour decision-making process, I was also guided by other online maps that I could find that were similar to mine. Moreover, after reading the article "The Expression of Colours" authored by Veronica Zammito. It is a slightly outdated article as it is from 2005 making it just under twenty years old but it makes valid points that are still applicable and relevant to the type of mapping this project is concerned with.

Accessible to All User Competency Levels

The objective of making this digital artefact as accessible as possible was at the forefront of each decision involved in the building and curating process, as discussed previously. This does not stop with open access to its materials or responsive design, it also applies to the layout and language used. A conscious effort was made when designing and building this artefact to accommodate users who may have little to no digital literacy. How easy a site is to use and its functionality is becoming an increasingly important aspect of the design process, a survey in 2021 found 42% of people will leave a website because of poor functionality (Top Design Firms, 2021). To combat this, I designed the layout of each webpage and how it conveyed its information to be as comprehensible as possible whilst ensuring it was a site that is easily navigable. This was done through many methods of simplification but it also involved the decision to not include a conventional menu button. The reason behind this is again to make it easier on users who have very little digital literacy skills. Instead, each webpage's title is in the header of the site and is embedded with its own URL to bring you to that page. In addition, as this is not a history project there was great freedom in being allowed to write about the history of Donoughmore in simpler historical language. This opens it up to users of all backgrounds as the digital artefact is designed

to convey information as cleanly and easily as possible while the information being conveyed is worded to include all readers in learning about Donoughmore.

These methods were employed in tandem with the Web Content Accessibility Guidelines published by the Web Accessibility Initiative (WAI) of the World Wide Web Consortium (W3C), the main international standards organization for the Internet. Their thirteen guidelines fall into four categories; Perceivable, Operable, Understandable and Robust. These guidelines heavily influenced the design process of this digital artefact, especially in the earlier stages of creating this artefact as it provided a structured platform to launch this archive. There are two guidelines in the Operable category that were kept at the forefront of the design process, the first being "Give users enough time to read and use content" (W3C, 2018). Given the informative nature of the content being used on the site and to aid the immersion of the user into the digital artefact a decision was made to not include any timer or automatic moving features as they always seem to be too short and can get quite frustrating quickly. The second guideline that was kept in mind throughout the design process of this digital artefact was "Do not use content that causes seizures or physical reactions" (W3C, 2018). This guideline manifested itself in the design phase as another method of inclusion for the users that may not be tailored for by other sites. It resonated with me as someone who has been living with epilepsy since the age of fifteen and has to be wary of what can trigger an epileptic fit. I saw an opportunity to make a digital artefact that could attempt to educate everyone but also be designed with all types of users and their specific needs in mind.

This leads to another important guideline that was followed, "Provide text alternatives for non-text content" (W3C, 2018). As there would be an aspect of viewing the past through imagery in this project, it seemed vitally important to provide alternative text for every single image used. This serves as a method to make the digital artefact more accessible but also ensures it can still run effectively for users on a slow internet connection or even still hold its efficacy to users who have issues viewing the content on webpages. In keeping with the teachings of this guideline captions were also added to photos where the context may need to be clarified, this method helped to ensure that each webpage was made to be engaging, entertaining, educational and usable for all users. By employing a method of inclusion through this guideline and the school of thought that is progressive enhancement, the user is guaranteed an operable, informative, and immersive

experience by using this digital artefact. This ensures each user has the opportunity to be informed equally despite any extenuating circumstances they may or may not experience.

The implementation of these digital methods along with the employing of some W3C guidelines is vital to express the nuanced nature of Donoughmore's history whilst making sure the user is engaged regardless of circumstance. These methods were employed to combat any factor that may make it difficult for them to enjoy this digital artefact or reap the full benefit of it. This digital artefact brought together books, images, podcasts and archived historical on-goings to give the Donoughmore community an easy archive to learn from and interact with. It would be ironic if all that work and research were to be rendered useless or exclusionary by a user who through no fault of their own fell at the first hurdle, usability. By making this artefact as usable and accessible as possible it serves as an example of how, with the use of the right digital methods, to tailor an immersive informational experience to every user while catering to any needs they may have.

The report will now move to a discussion on the implementation phase of the project in Chapter 5.

Chapter 5 Implementation

This chapter examines the steps taken to translate the conceptual design of the digital mapping and archiving system into a functional and interactive platform. The implementation phase marks a crucial milestone in the project, as it involves the actual development, integration, and deployment of the technological infrastructure required to answer this project's research question.

With the conceptual groundwork laid out in the previous phases, the focus shifts towards the practical execution of the project goals. The implementation phase encompasses a range of activities, including data collection and processing, mapping and visualization, user interface development, integration, deployment, testing, and ongoing maintenance and support.

Multiple aspects of this digital artefact took clear and concise implementation. These included the act of digital mapping and populating these maps, developing and engineering a navigable user interface for the site, making sure accessibility was at the forefront of each choice made, designing an interactive graph and encompassing buttons and plugins to enhance the overall usability and experience of this digital artefact.

Data Collection and Curation:

Given the nature of this project's research question and the data needed to answer it, a crucial step of the implementation process was collecting the data and choosing how best to represent it in a meaningful and impactful way. The main motivator for this final year project was seeing the vast amounts of historical data that were already available on Donoughmore while also experiencing it being ignored. Whether it be books, old photo albums, or archived records there was a lot of historical data to collect for this artefact. The bulk of the historical data implemented into this artefact was collected from history books published on Donoughmore that unfortunately were getting forgotten about as were the multiple historical photos taken of the village used in the artefact.

The reason for this was due to the format in which they came in, it is very hard to be immersed in a dusty old history book or a photo album with no context found in the back of a shed. However, a lot of digitised and digitally available open-source data was also being lost between the cracks of the ever-expanding internet landscape. Two great resources, apart from the history books

published on Donoughmore, for this final year project were the Central Statistics Office and The Irish Military History Online Archive. They made data collection feel seamless at times as it was clearly labelled and very easy to navigate. It was the culmination of all these data sources that allowed this artefact to bring the most interesting and relevant data into one archive. It must be noted that if this project was not bound by the time restraints of one academic year it would encompass a lot more of Donoughmore's overall history.

Nevertheless, a blend of digital maps, routes, and media players form the digital avenues to portray the human story behind this data. They were carefully selected to emphasise interactivity and maximise educational take-home while also keeping humanity at the centre of the portrayal of the data regardless of its implementation. The curation of this data took on a life of its own, as the data dissemination that I have been upskilled in through my Digital Humanities studies allowed me to give the best possible platforms to convey the humanitarian story behind each piece of historical data chosen. The use of digital mapping was used to effectively portray the overall landscape, shape and journeys involved in Donoughmore's history. This method of bringing both historical and geographical data online quickly became a main proponent of the curation of this project's data. This is a testament to the efficacy of the tool used but also how open this data was to be platformed. It was the teachings of Digital Humanities that allowed this data to be brought back to the surface through digital means. This method of data curation paired with embedding media players and historical photos as context for their accounts whilst using CS and UX/UI skills to give an adequate platform to archive all this data made for the perfect answer to this research question.

Interactive Scatter Plot:

The decision to include an interactive scatter plot in this artefact was made to illustrate the programming and data visualisation skills learned during this degree programme while also giving further context to the progression of Donoughmore's population numbers throughout the years. This plot was developed through Java and Plotly, a library in Java, while also using HTML and CSS to improve the look and feel of the graph. This also helped with how effective the graph was at portraying the census figures that were being displayed. The decision to make it interactive was again another attempt to make this information and avenue of data visualization as easy to read and understand as possible. Given the audience of users that will be accessing this site, it was important to place an extra emphasis on making the graph easy to read. This was done by choosing

appealing colours, clear and easy-to-read fonts, large labels and giving the graph enough space on the webpage it was in.

This interactive Scatter Plot was not implemented into the digital artefact without teething problems. One of these problems is the amount of coding and design effort it took to get these languages to talk to each other, within the context of a “custom code” box in WordPress. To solve this problem I looked through many online forums like W3schools and Stackoverflow, FAQ pages, and online tutorials. This initial problematic phase was overcome by techniques learned in the second year of this degree programme in which a heavy emphasis was put on choosing the right plot as well as choosing the right shape and how to come to this decision. The shape decided on was rectangular in nature as it was to represent change over time.

Figure 1 represents census figures for Firmount. The decision to make the plot a rectangular shape to represent change over time and enhance readability came with a host of problems. Again, we had to overcome the initial issues with how WordPress wanted this plot to look and lay on the webpage, a design that was not easy on the eye and would often cut out the other text on the page. This was solved by improving the HTML code and manipulating the CSS code to make it fit. These changes proved to be a success but did not carry over to the mobile version of the artefact. Unlike the digital map's ability to allow the code to be manipulated into auto-scaling to a device's screen size, the interactive graph would not cooperate with smaller screens given the nature of how it was portraying the census population info. The solution to this was to make the graph narrower in width but in doing so, the information appeared too bunched together to convey the message behind the figures. After many attempts at fixing this issue and endlessly troubleshooting this aspect of the plot, an amendment was made to the WordPress theme that allowed the user on a smartphone to zoom out and view the graph in its entirety. Unfortunately, it could not be kept within the design of the webpage but it was the best-case scenario for the problem at hand.

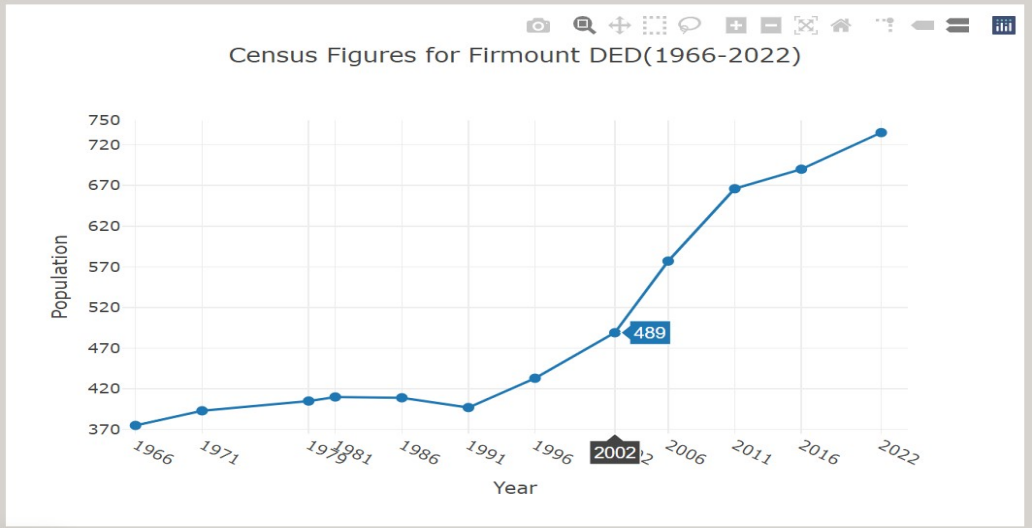

Figure 1: Census Figures for Firmount

Click to Go Back Up Button:

Figure 2 represents a 'Click to Go Back Up' button incorporated into the digital artifact, designed in a bold black colour with white font for easy recognition and visibility while scrolling. This addition serves to guide users back to the top of the webpage, ensuring seamless navigation and uninterrupted exploration of Donoughmore's history. The attention span of an online user can vary depending on multiple factors and how easy the site is to use is perhaps the biggest of these factors. The implementation of this button aims to enhance the site's navigability and increase the efficacy of doing so, recognising the importance of user experience in maintaining engagement. Positioned in the bottom right of the site, the button facilitates accessibility for all users and is shown only during active scrolling or for a brief period after scrolling ceases. This was done as it ensures minimal interference with webpage content, prioritizing a clean and unobstructed viewing experience for users. By looking at the diagram of the button below and interacting with the artefact you will be able to gather the necessity of this.

Figure 2: Click to Go Back Up.

Google Translate Button:

Figure 3 presents a Google translate button. In keeping with the aim to make the language of this digital artefact as accessible as possible for all users, a translation option was implemented into the site to serve the portion of the community who may not speak English as their first language. Donoughmore, like every town in Ireland, is becoming increasingly multicultural. Our community has been very fortunate to have received the addition of multiple families and community members from all over the globe. To ensure inclusivity and to provide access to this digital archive of the village, it felt necessary to offer translation options in eleven different languages, including Irish and Ukrainian, as well as other major world and European languages. This feature is complemented by user-friendly tools and methods designed to facilitate easy navigation and comprehension for all users. The inclusion of multilingual support exemplifies a commitment to making this digital archive accessible to individuals who may not be familiar with the language of this country's history. The implementation of this translate button serves as a great example of how we can use technology to educate, include, and inspire.

Figure 3: Google Translate Button.

The final and most laborious section of this implementation phase was the testing of each webpage, button, map, and other embedded media. The quality assurance involved in making sure everything

was working and up to scratch involved constantly checking the site across multiple devices to make sure everything still worked and was legible. It required fine-tuning of HTML and CSS code to get everything in exactly the right place and make sure WordPress was working smoothly in tandem with every piece of embedded and coded content. The implementation and UI fitting of the historical maps proved to be a relatively easy task as all it required was embedding the link provided by GoogleMyMaps accompanied by some lines of HTML and CSS to ensure that the maps being used were placed in the correct place but also able to auto-scale in response to the user's device screen. The use of historic photographs was made incredibly easy by the theme I was using on WordPress, it allowed me to choose the exact layout of where and how these photos were to be displayed without interfering with the text already on the page.

The insertion of a podcast media player for the “I am to be Shot” documentary into the digital artefact was massively helped by a plugin made available through Reclaim Hosting. It allowed me to copy, paste the link into the webpage, and design a media box for it. This allowed me to solely focus on the aesthetic of this piece of embedded media and not worry about the code behind it. Unfortunately, this was not the case for the interactive graph, as discussed above, it was a timely process of trial and error through HTML, CSS, and Java programming to get it to look and showcase the data in a meaningful way. This graph took the longest to implement out of everything discussed but also required the most amount of testing and quality assurance. This unfortunately did not make it perfect for smartphone users as due to its size and shape was not auto-scalable to smartphones. The reason behind this is that if it were to fit the screen of a smartphone the axis’ and labels would be unclear given the tight amount of screen space, therefore not properly illustrating the data in question.

In conclusion, the implementation phase of this project's digital artefact was a true testament to trial and error. Every new piece of media, new digital map, and graph proved to be a process of design, fine-tuning, and crisis management. The implementation itself was only half the battle, as each part of this archive had to be meticulously checked on monitors, laptop screens, and smartphones to ensure that it was all in working order and that everything was connected. This would allow any user no matter their digital literacy skills, type of device, age, or preferred language the opportunity to learn, interact, and become immersed in the history of Donoughmore.

The paper now moves to the final Chapter which provides an analysis and reflection on the project.

Chapter 6 Analysis, Reflection and Conclusion

Introduction

The process of creating a comprehensive digital archive for a village and parish like Donoughmore presented unique challenges, particularly in regard to data acquisition and representation. This section critically analyses and reflects on the methodologies employed, the hurdles overcome, and the valuable insights gained throughout this final year project on digital mapping and archiving.

Throughout the project, a combination of qualitative and quantitative research methodologies was employed to collect, analyse, and interpret historical data and geographical information. These methodologies included archival research, digital mapping, data visualisation techniques, and user testing. By adopting a multi-method approach, the aim was to triangulate data sources and ensure the reliability and validity of the findings. Archival research provided a rich historical context for understanding the development of the community, while digital mapping facilitated the visualisation of the historical points in Donoughmore and provided context for the archived material. Additionally, data visualisation techniques such as interactive maps and graphs enhanced user engagement and comprehension of the project's findings.

Literature Review and Environmental Scan Learnings

There were significant learnings to be taken from every aspect of this final year project. It started while reviewing the relevant literature to understand how this project should go and be aware of what work has been done prior to this project. Upon reading journals and academic articles, it became apparent the wide gap in the world of academia for this type of work. Either every piece of work that was carried out with a similar aim to this project focused mainly on promoting digital tools to the extent that the content of the archive left much to be desired or the focus was put too heavily on content and not on making it accessible through digital tools and methods. This was a very unusual finding given the current attitude around wanting to learn more about your family and where you live or where you are born. An example of how good content can be lost through bad portrayal and relying too heavily on its content unfortunately comes from the “Online Digital Collections” of Cork City Council (https://corkarchives.ie/explore_collections/online_digital_collections/). Although the content of

the collections is very interesting it seems that very little thought was put into user experience and design when developing the resource.

This was further emphasised by the obvious appetite for this type of work from the public and academics alike. This helped put a shape on the project and give it some direction in its infancy. Similar projects and initiatives had been carried out to try to archive history whilst making it an accessible resource for users but this has rarely been attempted for rural history. A prime example of what great quality digital archiving can look like is "Our Irish Heritage" (https://www.ouririshheritage.org/) a National Museum of Ireland project improving access to Irish history and heritage by helping communities share their collections online. Beyond serving as a gateway to Ireland's cultural past, this website boasts a rich archive of user-contributed articles and photos, fostering a platform for diverse voices from Ireland and around the world.

This amalgamation of findings from conducting a literature review and environmental scan spurred the digital artefact to fill this gap and attempt to satisfy these curiosities.

Construction and Design Lessons

These learnings were not specific to the literature review and environmental scan portion of building this final year project. There were also very important lessons to take from constructing and designing the digital artefact. The goal of this artefact was to provide an answer to the research question I proposed "What is the most effective way that we can preserve rural Irish history in a way that is accessible for all to interact with, learn, and explore digitally?" With keeping this question in mind the aim was to not succumb to the shortcomings of other similar archives where it was clear that no thought was put into design and curation of the data gathered. This artefact set out to show how this problem can be rectified. However, it was a lengthy process as it became very obvious how difficult of a task this was. Ensuring every aspect of this artefact was accessible and easy to disseminate was quite the challenge. This was exemplified by the implementation process of programming the interactive maps to auto-scale to whatever device they are being viewed on. Without HTML literacy, this would have been an almost impossible task as there was a lot of code manipulation done to get it to be in the right place on the webpage.

These difficulties did not dissipate in other avenues of designing the artefact. The overall design of the artefact was chosen to promote and not distract the user from the message and objective of

the project. The clear layout and clean colours were done to help this as was the decision to make it a very easy archive to navigate through. The monochrome colours of black, white, and cream were also chosen both to represent the Donoughmore colours, black and white, but also to ensure that if a user had difficulty with recognising specific colours would not be left behind or put at a disadvantage. Headings were put in the header as links to replace the traditional menu button so no user regardless of digital literacy would find difficulty in getting to their desired webpage. In keeping with this ideology, clearly defined and relevant buttons were used throughout the archive. They were used to ensure easy navigation of the artefact but also to add context to pieces of history by linking to other resources, allowing users to go to other sites to learn more, play audio and even keep in contact through already established lines of social media communications within the community. The most important of these buttons came in the form of a translation option. As discussed previously in this report, it allows the user to choose the language the content of this archive is displayed in further ensuring that every user gets the most informative, immersive and inclusive experience possible.

The lessons learned during the construction process of this artefact highlighted the benefit of gaining HTML and CSS competency as it allowed a hands-on approach to be taken. This came to fruition when it came to constantly being aware and have the ability to change the structure of the artefact to ensure the best platform was given to celebrate and promote Donoughmore's history. This was prevalent when it came to choosing and adding code to digital tools that were being employed to add to this artefact. As detailed above a heavy emphasis was put on ensuring user accessibility and inclusion under any circumstance. Having the control to hand-code changes in where text boxes, images, blocks and other website objects lay made a huge difference in the construction phase. The lessons learned during this phase emphasised how and why this is a vital field of thinking when carrying out projects like this.

How the Tech Responded

The tech and digital tools involved in this final year project were picked based on operability and how fit they were for the task at hand. Thankfully, there were ample options out there especially

when it came to mapping. However, the addition of paywalls cut this list down drastically. GoogleMyMaps was selected specifically for this artefact due to its ease of embedding but also its ability to be operable with any programming language that needed to be used. In the case of this project that was Java, HTML, Plotly and CSS. These languages allowed the interactive maps to be moulded into exactly what was required highlighting just how perfect of a digital tool this was for the project but also highlighting the importance of having the ability to code when undertaking a project like this.

The take-home lesson from this section of the project was how vital it is to pick the digital tools that are most fit for what you're trying to achieve. Moreover, how necessary it is to have some knowledge of digital methods and CS capabilities when carrying out these types of projects. This knowledge showed how crucial it is to have when choosing what platform to choose to host this project's artefact. The teachings of Digital Humanities allowed this choice to be made from both experience and an analysis of what was available. ReclaimHosting was chosen as it was quite clear that it was the perfect platform for blending all CS aspects with the need for historic archiving. This decision would have been a much more lengthy process without the knowledge that Digital Humanities was able to impart. Much like the nature of this project, it created a perfect synergistic duo that was more than capable of building an archive to answer this research question.

Did the Project Achieve What It Set Out To?

The initial objective of this digital artefact was to answer the research question that inspired it. Thankfully, this was achieved but the expectations were constantly changing. Overall, the project was successful in building the digital archive but it embarked on a journey of accessibility and inclusivity that was not originally envisioned. It quickly became apparent that the research question could be answered in a way that encompassed the wide variety of a community's inhabitants. There was no need for any user to be left out and by using the wide variety of both Digital Humanities and Computer Science skills that I have learned throughout this degree programme. It allowed the artefact to answer its research question in true Digital Humanities fashion and intertwine multiple digital fields to promote and celebrate the humanistic side of it all. The main lesson from this topic of the project is that albeit it the project achieved what it set out to do by building a digital archive to showcase the efficacy of archiving history this way. It

surpassed its question and became an example of how we can achieve what is necessary while also ensuring that everyone is brought along on the journey.

However, another important lesson from this part of the project was in data curation. There was a lot of history that did not make it into the archive. This was down to the unfortunate scenario where the medium that was chosen would not do the pieces justice. For example, Ireland has a great aural tradition of storytelling and that is how the bulk of our rural town's history is kept alive. Although this project set out to offer a way to preserve this history, some pieces of data were too nuanced and contextual to include. This amplified the need to be able to make a judgment call over what is right for your artefact and what is not. Quality over quantity is often rehashed in these scenarios but this was a case of adding quality to quality. The project would be doing a disservice to those pieces that were left out by including them in a medium that did not convey or celebrate the human side of them. Simply archiving is not enough.

Surprises That Arose

During the course of this project, there were many challenges, some were to be expected but others were quite surprising. One of these challenges was the attitude of some historians, curators of historical archives or even the owners of published historical data when it came to the lack of awareness of this type of project work and even an unwillingness to partake or learn about it. This was very evident in some of the work that was reviewed and researched during this final year project. This lack of awareness and unwillingness to participate is quite apparent when you look at the quality of some of these articles, archives, and historical findings. There was an exclusionary air to the work these academics and authors had carried out that completely contradicted the nature of the work they were doing. This morphed into a more worrying issue, the attitude of some who have a specific knowledge of a part of history and view that knowledge almost as ownership of the event. This attempt to elevate their status by gatekeeping these resources and making them difficult to access is astonishingly unprofessional and quite worrying that this egotistical attitude still exists. Thankfully this was only a small number, it made the cooperation of historians and published authors within the Donoughmore community even more appreciated. The project was very fortunate to benefit and represent this work as there was a shared passion for making this information available to the public to benefit the community's education.

The small number of exclusionary educators was eventually overshadowed by the huge appetite from the public and other academics alike to carry out work akin to this project. We are experiencing a changing attitude to history and local rural stories, these projects are becoming more and more popular and the public has a huge interest in them. A spotlight is being put on tracing your routes, preserving local stories, and archiving rural Ireland by the public and by governmental projects. One such project that caught national attention was the Trinity College Dublin research project "Beyond 2022". The funding of this project by the government allowed for some magnificent work that benefits both the world of academia and the people of Ireland. This project has been previously discussed in this write-up but it serves as a great example of how important and beneficial this work is. It also highlighted the ever-increasing need for informative, interactive, immersive, and accessible local history resources, and with a growing number of digital tools applicable to carry out projects like this on both small and large scales means that we should see an increase in the number of projects being taken on.

Human Implications

In analysing the human implications of this final year project on digital mapping and archiving, several key themes emerged that underscored the significance of this work. First and foremost, the project's digital artefact set out to find the most effective way to preserve rural Irish history in a way that is accessible for all to interact with, learn and explore digitally. The creation of this digital artefact aimed to provide equal access to education and historical information about Donoughmore. By digitising historical records and creating interactive maps, this project sought to democratise access to local history and empower community members to explore and engage with their heritage. Moreover, the project attempted to foster an online sense of community that transcended geographical boundaries and included individuals from diverse backgrounds. Through human-interest stories and historical narratives embedded within the digital archive, the artefact endeavored to capture the lived experiences and collective memories of Donoughmore's residents, thereby enriching the project with a multifaceted understanding of the community's identity. Additionally, by implementing various digital humanities methods, such as digital mapping and data visualization, provided multiple ways for users to interact with the archive, catering to diverse learning styles and preferences. The overwhelmingly positive feedback received from individuals who have engaged with the project underscores its value and relevance within the community, eliciting excitement and enthusiasm for its ongoing development and impact. This feedback was

not only the answer of Donoughmore natives but from people outside of the community who now have a foot in the door of an interest in Irish history. Overall, the human implications of the project underscored its potential to foster inclusivity, community engagement, and lifelong learning in the digital age.

Final Analysis and Reflections

To summarise, this final year project on digital mapping and archiving has been a journey of discovery and innovation. Through meticulous research and collaborative efforts, the project successfully created an accessible digital archive of Donoughmore's history. Leveraging digital tools and methodologies, including GoogleMyMaps, Plotly, CSS and HTML, the project bridged gaps in academia and allowed dynamic engagement with local history. Challenges along the way, such as hesitance from some academic quarters, design and construction setbacks and data curation complexities, underscored the importance of perseverance and adaptability. Ultimately, the project's human implications extend beyond the digital realm, empowering the Donoughmore community, fostering online inclusivity and cultural preservation. This project sets a precedent for future endeavors in digital humanities, paving the way for continued innovation and community engagement in historical research.

This Chapter will now move to providing a conclusion to the project.

Conclusion

In conclusion, this final year project on digital mapping and digital archiving has provided valuable insights into the intersection of technology and historical preservation. The primary objective of this project was to develop a digital artefact to answer a research question in response to a problem facing society today. A comprehensive digital archive of Donoughmore that would serve as an accessible resource for community members and researchers alike. Through a combination of archival research, digital mapping techniques, and user testing, this objective was successfully achieved.

In completion of this final year project, there have been many lessons learned from this process. If the time constraints were longer than an academic year to complete this project, it would have allowed a broader scope of Donoughmore’s history. Whether it be incorporating aspects of aural

storytelling or employing more digital tools and methods to preserve more of Donoughmore's history topics. It would allow this digital artefact to give a complete history of the parish.

Additionally, without the constraints of a university code of ethics, this project would have had the ability to encompass much broader sources of historical data. Given the nature of this project and the exclusion of some sources due to the need for an ethics approval upon inclusion the opportunity to include anecdotal accounts and old stories that are synonymous within the parish. The exclusion of these sources were bound within the constraints of time, ethics approval, project relevance and accuracy. They would have been great additions for the entertainment side of this artefact but not so much the grading and academic point of view.

One of the key findings of this project was the importance of user accessibility and inclusivity in digital archives. By implementing features such as translation options and interactive maps, the archive was able to cater to a diverse audience, ensuring that everyone, regardless of language or technical proficiency, could engage with the historical content. This emphasis on accessibility not only democratized access to local history but also fostered a sense of community engagement and lifelong learning. This allowed the project to be better equipped to answer the research question than originally thought; the best way to archive history is by making it accessible to all.

The completion of this final year project does give the opportunity for future learning and opens up an avenue for future academics, students of Digital Humanities and digital archiving enthusiasts to build on this work. By analysing this artefact and taking into this write-up account, one would hope that improvements can be made to the next project of this type that is carried out. This digital artefact was curated, designed and built with the help of open source resources and in keeping with that sentiment the hopes for this project is that in time it will be open source and freely available for use to help others with a similar idea and passion for intertwining Digital Humanities and IT tools and methods.

Moreover, it allows the opportunity of this final year project to be used as a framework for other rural town historians that want to digitally archive their villages history. This would ensure that an improvement to existing work can be made aswell as improving the standards for future projects of this type. Looking ahead, continued advancements in technology, such as augmented reality and artificial intelligence, offer exciting possibilities for enhancing the user experience and expanding the scope of digital archives. This project is by no means revolutionary or re-inventing

the wheel but it can be used to improve what is out there and what is to come, whether that be within the DH community or further afield.

This final year project embodies the interdisciplinary nature of Digital Humanities and IT. Highlighting how it is becoming an increasingly significant field of study across the broad spectrum that is modern-day society. The idea was formed from the inspiration of the importance of using digital tools and methods to solve human and societal issues, none more pressing than the loss of our rural history. By intertwining the teachings of Digital Humanities, using technology to give these stories a platform and interactive mediums that best represent Donoughmore's stories and the plethora of historical sources available allowed this project to surpass its initial expectations.

Overall, this final year project has demonstrated how effectively we can preserve rural Irish history in a way that is accessible for all to interact with, learn, and explore digitally. It has promoted the value of digital mapping and archiving in conserving and celebrating local history. By leveraging digital tools and methodologies, we can ensure that the stories of our communities are preserved for future generations to explore and appreciate.

This concludes the report write up for my final year project.

Bibliography*:*

Donoughmore Historical and Writers Group (2006). Donoughmore Remembers. 1st ed. Cork: Donoughmore Historical and Writers Group, p.77.

Baggett, M. Gibbs, R. (2014). Historypin and Pinterest for Digital Collections: Measuring the Impact of Image-Based Social Tools on Discovery and Access. Journal of Library Administration, 54(1), pp.11–22. doi:https://doi.org/10.1080/01930826.2014.893111.

Cambridge Dictionary (2020). ARCHIVE | meaning in the Cambridge English Dictionary. [online] Cambridge.org. Available at: https://dictionary.cambridge.org/dictionary/english/archive.

Deans, A. Leask, N. (2016). Studies in Scottish Literature Studies in Scottish Literature. Studies in Scottish Literature, [online] 42(2), pp.164–172. Available at: https://scholarcommons.sc.edu/cgi/viewcontent.cgi?article=2127&context=ssl [Accessed 25 Jan. 2024].

Hill, D. Wall, J. (2013). Overview - Virtual Pauls Cross Website. [online] Virtual Paul's Cross Project. Available at: https://vpcross.chass.ncsu.edu/.

Lauriault, T. Taylor, D. (2019). Digital Mapping - an overview | ScienceDirect Topics. [online] www.sciencedirect.com. Available at: https://www.sciencedirect.com/topics/earth-and-planetary-sciences/digital-mapping.

Marcoux, J. and Leifeste, A. (2022). Impact of Digital Technologies on Historic Preservation Research at Multiple Scales. Technology|Architecture + Design, 6(1), pp.22–31. doi:https://doi.org/10.1080/24751448.2022.2040299.

Smith, M.J. (2011). Digital Mapping - an Overview | ScienceDirect Topics. [online] www.sciencedirect.com. Available at: https://www.sciencedirect.com/topics/earth-and-planetary-sciences/digital-mapping.

Hatcher, W., McDonald, B. Brainard, L.(2018). How to write a case study for public affairs. Journal of Public Affairs Education, 24(2), 274-285.

Princeton University Library (2015). Latin American Ephemera Digital Archive. [online] lae.princeton.edu. Available at: https://lae.princeton.edu/about?locale=en [Accessed 13 Feb. 2024].

Trinity College Dublin (2022). Beyond 2022: Ireland's Virtual Record Treasury – The National Archives of Ireland. [online] Beyond 2022. Available at: https://www.nationalarchives.ie/article/beyond-2022-irelands-virtual-record-treasury/ [Accessed 23 Apr. 2024].

Killorglin Archive Society (2023). Killorglin Archive | Preserving the Past for The Future. [online] Killorglin Archive. Available at: https://killorglinarchives.com [Accessed 23 Apr. 2024].

Sholihah, A.B. and Widodo, J., 2018. Blended Learning in Heritage Conservation Course: Cultural Mapping and Google My-Maps Platform. DIMENSI (Journal of Architecture and Built Environment), 45(2), pp.181-188.

Zafaripour, M. (2020) Why Reclaim Hosting? University of Oregon. Available at: https://blogs.uoregon.edu/dreamlab/2020/11/04/why-reclaim-hosting/.

Price, S., (2021) „What Is WordPress. A Begginer's Guide.

Ward, C., (2017). Jump Start Responsive Web Design: Modern Responsive Solutions. SitePoint Pty Ltd.

Central Statistics Office (2023). Devices Used - CSO - Central Statistics Office. [online] www.cso.ie. Available at: https://www.cso.ie/en/releasesandpublications/ep/pisshict/internetcoverageandusageinireland2023/devicesused.

Helander, M.G. ed., (2014). Handbook of human-computer interaction. Elsevier.

Zammitto, V., (2005), June. The Expressions of Colours. In DiGRA Conference.

W3C (2018). Web Content Accessibility Guidelines (WCAG) Overview. [online] W3. Available at: https://www.w3.org/WAI/standards-guidelines/wcag/.

Peck, A. (2021). Website Redesign Checklist: 5 Trends to Consider. [online] topdesignfirms.com. Available at: https://topdesignfirms.com/web-design/blog/website-redesign-checklist.

National Museum of Ireland (2023). Our Irish Heritage. [online] Our Irish Heritage. Available at: https://www.ouririshheritage.org/ [Accessed 24 Apr. 2024].

Cork City Council (n.d.). Online Digital Collections. [online] Cork City Archives. Available at: https://corkarchives.ie/explore_collections/online_digital_collections/ [Accessed 24 Apr. 2024].