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**RE-IMAGINING MEMORIALISATION IN THE  
SINGAPORE CONTEXT AND BEYOND**

By

Lydia Phua Jing Ling  
(19032578)

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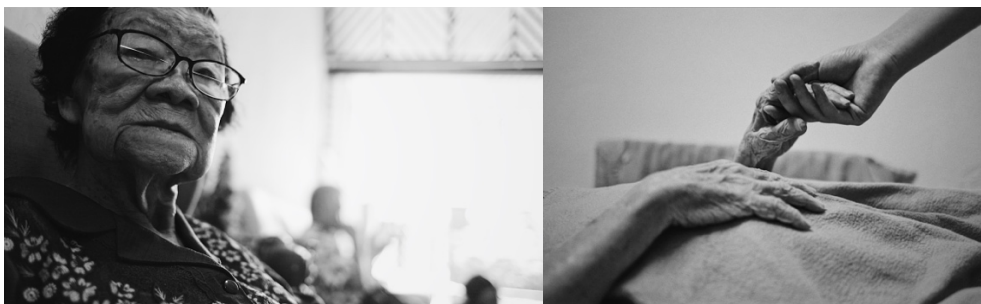
# Table of Contents

<b>Acknowledgements</b> .....	<b>i</b>
<b>List of Figures</b> .....	<b>iii</b>
<b>Preface</b> .....	<b>1</b>
<b>Abstract</b> .....	<b>2</b>
<b>CHAPTER 1: INTRODUCTION</b> .....	<b>3</b>
1.1 Digital media and its role in documenting life stories.....	3
1.2 Research Objectives.....	5
1.3 Research Questions .....	5
1.4 Organisation of the Exegesis.....	5
<b>CHAPTER 2: BACKGROUND</b> .....	<b>6</b>
2.1 Digital media as memorialisation practice .....	6
2.2 New affordances and paradigm .....	7
2.3 The role of film structures within these practices.....	8
2.4 Ethical Considerations .....	9
<b>CHAPTER 3: RELATED WORKS</b> .....	<b>10</b>
3.1 Current offerings internationally .....	10
3.2 Re-looking into Singapore’s offering.....	11
<b>CHAPTER 4: HOW <i>MEMORY CRAFT</i> WAS IMPLEMENTED</b> .....	<b>13</b>
4.1 Mapping of film narrative journey into the mobile app .....	13
4.2 Design Process.....	16
4.3 Prototyping and User Testing .....	17
4.3.1 First version of the Prototype .....	17
4.3.2 First Iteration.....	18
4.3.3 Final Prototype .....	20
4.3.4 Discussion of Findings .....	20
<b>CHAPTER 5: CONCLUSION</b> .....	<b>24</b>
5.1 Limitations .....	24
5.2 Recommendations for Future Studies.....	25
5.3 Conclusion.....	25
<b>Bibliography</b> .....	<b>26</b>

## List of Figures

Figure 1: Film narrative framework for <i>Memory Craft</i>	13
Figure 2: Screenshots of 1st versions Prototype (Login Page & Home Page)	17
Figure 3: Screenshots of 1st versions Prototype (Stories Page)	18
Figure 4: Screenshots of first iteration	18
Figure 5: Screenshots of the Final Prototype	20
Figure 6: User Hierarchy Table in <i>Memory Craft</i>	23

## Preface



4 years ago, my grandmother passed away due to cancer. She promised to wait for me, but I was one day late as I was still in Jamaica and traveling back home to Singapore would take approximately 40 hours. As the only content creator at home, I endeavoured to ease my longing for my grandmother by creating a memorialisation video. On the flight back, my family members uploaded many media files - scanned photos, videos, and memories on their phones and uploaded them on various social platforms for me to collate in preparation for her memorial service. My heavy heart was further, stressed by the limited amount of time to choose from the sea of uploaded photos. The produced video was now on her death anniversary and used as a form of remembrance. It has helped my family and her friends to grieve our loss. We remember the legacy that she left behind for us and her future generations, and her life was definitely worth a celebration. Often, an individual in the family takes on the challenge of gathering media. There is much pressure when someone passes away. The situation that happened 4 years ago led me to some of these questions: What if we could simplify the funeral process for grieving? Is there a current offering that takes the pressure off and creates a joyous environment where memories can be shared in creating a collaborative work that honours the departed loved one?

In the context of Singapore, traditional rituals serve as a communal activity that helps the bereaved grieve the departure of their loved ones. We see acts of burning incense paper offerings, memorial funeral services, folding paper effigies, and chants apparent in a multi-religion Singapore. All these gestures display and consolidate kinship solidarity, collaboration, memorialisation which can be digitally replicated and enhanced.

## **Abstract**

This exegesis sets to transform traditional memorialisation into digital memorialisation in Singapore through the app *Memory Craft*. This digital memorialisation app serves to memorialise through the inheritance of digital artefacts of the bereaved. The current trends and memorialisation are predominantly rituals inherited from forefathers, which will be discussed further in this research. With the advancement of time and technology, we will see the values shifting from a physical memorialisation to a digital one.

The design of *Memory Craft* will encompass both design technologies and social platforms in its creation. Tapping on techniques in user interface and user experience (UI/UX) design, *Memory Craft* enhances emotion connection through integrating film narrative structure into the user journey in the application.

Survey results to pilot-test this app would also improve the app more emotionally and functionally. Based on these findings, this work proposes a new approach for digital memorialisation in this digital age in Singapore. The interviews and user testing in this research reveal that *Memory Craft* created a collaborative work that honours the departed loved ones and demonstrates affordances to create a video for different events or milestones in life, which will be further explored.

# CHAPTER 1: INTRODUCTION

## 1.1 Digital media and its role in documenting life stories

Memorialising a loved one allowed us to recognize that our loved ones are no longer physically present but their memory lived on. Furthermore, documenting life stories and memories of the deceased not only honoured but also assisted those left behind in dealing with our grief (Vale-Taylor, P. 2009). The shift towards digital memorialisation integrated the deceased into the everyday lives of the bereaved as an alternative means of communication daily (Van der Laan & Moerman, 2017). While cemeteries have traditionally offered a place for the bereaved to locate their memories, several contemporary memorialisation practices are enacted in shared public spaces outside the cemetery. These studies above have begun to provide an insight into the shift in memorialisation from public to digital spaces- an alternative means of communication helped the bereaved to grieve and be part of a community and grieve. Digitalisation also allowed for living moments to be replayed as a way for the bereaved to grow around the grief, and such digitalized communication can be revisited more conveniently compared to the cemetery's physical location (Walter, Tony & Hourizi, Rachid & Wendy, Moncur & Pitsillides, Stacey. 2011).

*In Mediated Memories in the Digital Age* (2007) and *The Culture of Connectivity* (2013), Van Dijck explores how digital media and technology are reconfiguring the relationship between public and private, memory and experience, self and others. Van Dijck notes that in the digital age, "technologies of the self are increasingly technologies of sharing." Van Dijck (2007: 119–120) Memory artefacts and media technologies today serve both a communicative and a memorial purpose. The bereaved are not solely expressing a desire for continuous contact and dialogue with the deceased by publishing letters online. They are also using these online memorials to interact and connect with living people, alleviating some of the pain, sorrow, and rupture inflicted by a loved one's death. In this digital age, memorialisation has shifted from physical commemorating to visual communications. Ordinary people are now routinely creating a digital record of their daily lives via social network services, and we accumulate substantial media legacy data online. These digital legacy data online represent a narrative of a life lived. How can we repurpose these digital data of the deceased and ensure meaningful long-term preservation? With the new technologies, we can use a

conceptual framework for telling visual stories about personal life encounters and memories using short-format videos.

Emotional disclosure via writing following the love of a loved one can have positive effects (Cable, 1996). Digital craft offers a less explored avenue to support bereaved people to act on something, and therefore has the potential to address the passive victimization following a loss. Through the curation process, the bereaved becomes a participant in an activity that helps them in the stage of bereavement. It shows the importance of community integration and having an online space or platform to grieve the loss of a friend. There is a need to foster conversations within a grieving support community. Support will allow the grieving person to own their identity entirely. Therefore, it is essential to help bereaved individuals and family members to find the best path forward to cater to their unique needs. There is a parallel between writing and digital craft. It suggests that digital craft could be another means of emotional disclosure.

The use of social media to commemorate and memorialise the dead continues this cultural move to mediate death and the dead and reposition the emotional experience within the flow of daily life (Hutchings, T. 2012). As our life and death become increasingly entangled within the digital realm, we can explore the opportunities and tensions that technologies can bring within the death memorialisation industry. There are opportunities to explore and design technologies supporting death-centric practices, focussing on the remembrance of loved ones and the inheritance of digital artefacts. Group chat apps have been thoroughly explored in a number of research. For instance, Wilding (2006) and Hu et al. (2004) both looked into how chat apps might encourage intimacy among friends and family. A close community is driven mainly by the intimacy and memories created within the chat apps. Therefore, there is an opportunity to serve in this area.

A platform involving a close community to curate digital memories is missing, causing legacies to be lost with time. When we learn to embrace death, we will know how to celebrate and appreciate one another's life. The Besupp website built by Massimi et al. allows bereaved people to communicate in a unique online area while expanding our understanding of their interactions in that space. Dominick et al. also developed

an internet-based program to assist simple grieverers in processing their loss. The act of assembling photos and other artefacts can serve as a therapeutic ritual for commemorating departed loved ones and healing over the loss (Sas, Corina & Coman, Alina. 2016). However, these options for expressing grief online are limited to text and still images. It has missed the importance of how short videos could play a role in supporting bereaved families.

## **1.2 Research Objectives**

This research aims to:

1. Identify current memorialisation practices and developing trends.
2. Explore how new media technology will enhance the practice of memorialisation?
3. Evaluate if the new media that we created enhance experiences for the bereaved.

## **1.3 Research Questions**

Having established the main objectives, the following research questions are formulated and investigated throughout this exegesis:

1. How can we re-imagine memorialisation in the context in Singapore and beyond?
2. How can we design tools for aiding the expression of grief?
3. How can film storytelling techniques enhance the bereavement journey?

## **1.4 Organisation of the Exegesis**

Chapter 1 establishes the context and overview of the research. It also establishes the research questions and identifies the objectives.

Chapter 2 will examine relevant literature on digital media and memorialisation practices. This chapter will also look into new affordances and paradigms, the role of film structure within memorialisation practices, and ethical considerations.

Chapter 3 will discuss current offerings internationally and re-look at Singapore's offering.

Chapter 4 will present and examine the findings from implementing *Memory Craft*. Refinements made in *Memory Craft* were discussed.

Chapter 5 will present the conclusion of the exegesis and its attempt to answer the research gaps established, as well as reflect on its objectives and findings. This is followed by the limitations of the exegesis and concluded with recommendations for future research studies.

## **CHAPTER 2: BACKGROUND**

### **2.1 Digital media as memorialisation practice**

The use of social media to commemorate and memorialise the dead continues this cultural move to mediate death and the dead and reposition the emotional experience within the flow of daily life (Hutchings, T. 2012). Social media has become a significant form of communication tool in our lives. It potentially increases our awareness of our social contacts and provides a sense of togetherness. Our digital life will live forever online. Consequently, building a secure and accessible digital legacy is essential for our family to stay connected. Consumers opt for a personalized amalgamation of traditional and contemporary social practices surrounding memorialisation to fulfil their individual needs (Walter, Tony. 1996). Users decide what they want their memorialisation to be like, and it gives them the right to decide this end phase of their life with a unique choice accompanied by an aesthetic digital platform to commemorate and celebrate one's unique life. This aligns with the view that memorialisation will change over time as a material response to handling death and dying within a sociocultural context (Janson, 2015).

The versatility of social media has transformed once passive audiences into authors, editors, writers, columnists, photojournalists, and publishers. Innovative mobile hardware has heralded a new pattern of behaviour where people are constantly connected to the web. We see that digitised memorialisation brings a communal memorialisation that is not limited by space and location. The landscape of memorialisation has gradually shifted from a traditional setting to a contemporary one.

The creation of digital technology could better support the process of remembrance of the deceased for a longer-lasting effect (Corina Sas, Miriam Schreiter, Monika Büscher, Fiorenza Gamba & Alina Coman 2019). The practice of continuing bonds has moved beyond the traditional private sphere and into more public realms, such as cyberspace and social networking sites (Klass, D., & Steffen, E. 2018). Continuation of bonds extends indefinitely and not bounded by traditional physical limitations. The emergence of digital and future technology in memorialisation spaces have created many opportunities for new digital tools to enter the death care industry.

## **2.2 New affordances and paradigm**

Digital photos play a critical role in the grief journey and illustrate an opportunity for researchers to create digital-photo-specific tools for grief expression, such as photo albums commemorating a deceased loved one's major life events. More importantly, these tools should allow for simple photo sharing and should be able to function as standalone applications as well as extensions to existing online grief support platforms, such as *Facebook* groups and grief-specific forum websites. Such tools would facilitate legacy and remembrance practices for online and offline complex grievers (Baglione, Anna & Girard, Maxine & Price, Meagan & Clawson, James & Shih, Patrick. 2018). Digital practices are often frequently imperceptible when it comes to a funeral. It is essential to assist grievers in locating support resources specific to the nature of their loss, reduce information overload in online groups and platforms, and create tools for expressing grief through digital photographs. However, digital images might still lack an impact in drawing out emotions, and the effect would be rather one-dimensional. However, the power of video images lies in their close resemblance to reality.

Technological advancements and media convergence trends are transforming it into a dominant medium. Video can evoke emotions and perceptions, not just because it is an effective medium for expressing emotions but also because of its elicitor properties (Peter, Christian & Crane, Elizabeth & Fabri, Marc & Agius, Harry & Axelrod, Lesley. 2008). Human beings' health, cognition, and creativity are all influenced by emotions. One of the video's most outstanding qualities is its ability to elicit attitudes and feelings in a way that no other medium can, and it is also a great approach to

display compelling data. A legacy video allows users to collect and engage with videos depending on their emotional content. Video is an affluent media type that combines a variety of symbol systems, such as visuals, words, music, and narration, to engage the spectator cognitively and emotionally, and has much potential for promoting emotional experiences. It's been used for various purposes, including capturing and showing natural occurrences, creating and visualizing scenarios that are not visible in real life; informing; telling stories and entertaining, learning; and capturing and sharing our collective culture and personal history. Video can both portray and induce emotions. Using a film writing tool in the process of developing story structure parallels the grieving stages of the bereaved families. The visual material must be chosen and structured so the participant can understand the desired topic. An impactful video starts with a good structure in storytelling techniques. The traditional act story structure is designed in three parts: beginning, middle, and end. Beginning refers to the setup, the middle is the confrontation, and it ends with a resolution. Tapping on the concepts of cinematography, accompanied by the concept of directing, these three components will be designed to form the foundation of the video. The algorithm of the web-based app will tap on the collective offering of videos shared by the bereaved to form a meaningful short video of the deceased. Furthermore, the video compilation will also be sequenced according to the theme that is chosen. A space for collective sharing through digitalization would parallel the memorialisation of memories, voices, images, and animations of the moments spent with the deceased. As humans are mostly kinaesthetic and sentimental, the experience of looking through and consolidating memories will aid in managing grief.

### **2.3 The role of film structures within these practices**

Storytelling is a supportive tool for people who have experienced adverse life events. It encourages them to process their feelings and emotions about an event through narratives (Bosticco, Cecila & Thompson, Teresa. 2005). How can we use these three components to compile and conclude a deceased life into a meaningful short video? Is there space for collective sharing? What is the significance of a collective effort towards assembling video sequences according to a theme? When grievors had a strong need to convey or share their stories through legacy and memory activities, there might be a resolution that goes on by the repetition of the story.

The process of re-authoring and reframing negative life experiences to find new meaning in therapeutic storytelling's narrative is significant for bereaved families. Discussing stories together helps the family make sense of painful events such as a child's death and improves their ability to heal (Kellas, Jody & Trees, April. 2006). Family members may experience less distress, such as depression and anxiety. This provides a space for family members to support and care for one another when they can come together to discuss and make sense of their loss and develop new assumptions, traditions, and rituals (Gillies, J., & Neimeyer, R. A. 2006). When families are able to make meaning of the death experience, they are better able to function individually and as a family unit, and they experience less post-loss distress. This suggests that when bereaved families enhance their capacity to articulate their sadness and sentiments about the death, it enables them to work together to create global digital family meanings. Healing could occur through the process of collective digital storytelling. It is essential to have a platform for a bereaved family to create a family's collective experience.

This grief model consists of the following phases: Fog, Isolation, Exploration, Immersion, and Stabilization (Anna N. Baglione<sup>1</sup>, Maxine M. Girard<sup>2</sup>, Meagan Price<sup>3</sup>, James Clawson<sup>1</sup>, Patrick C. Shih<sup>1</sup>, 2018 ). This model can be viewed as a fragmented path through the emotional process of embracing and coming to terms with death. This grieving model also shows how bereaved people deal with emotional grief in an increasingly technology-driven world. On the other hand, survivors may have long-term attachments to the departed. This exegesis presents a new approach, which will be discussed in Chapter 4, to the grieving journey and building bereavement support systems through digital storytelling and collective efforts.

## **2.4 Ethical Considerations**

How the dead seem to live on through online platforms provokes difficult questions over who has the responsibility, right, ownership, and duty of care over a digital legacy. (Wright, Nicola. 2014). Without clear policies on how to deal with and protect the profiles and accounts of the dead, these are open to manipulation by others, inappropriate adverts, phishing, and often obscene and offensive comments (Aitken,

Amanda & Forker, Arlene. 2014). Sensitive questions may arise when it comes to rendering the rights of the dead's online platforms to become the responsibility of another living person. Traditional conceptions of personal archives are based on the assumption that after an individual creator's death, their collections will be passed on to a future steward such as the next of kin or an institution who will be accountable for administration and authentication protocols. Personal collection development is currently supported by content intermediaries such as Facebook or Instagram, although the platform's support for personal archives is unclear. Most explicit articulations between users and content intermediaries about the future of collections have been enacted thus far through application privacy policies. Privacy is still the most significant consideration when it comes to managing the collections of social media data. On the other hand, the priority of the living user's authority over their data undercuts the possibility of legacy or heritage evidence remaining in files over time and beyond the user's death. Currently, popular social media sites, such as Facebook and Instagram, only tolerate post-mortem social networking practices to the degree that they comply with security models and design expectations before the individual's death. We must understand the ethics behind the effects of "death work." Engaging these spaces in the name of an archive at the platform level forces us to consider new interactions and expectations for how our archives may be used, not just over our generations but several lifetimes. Therefore, addressing ownership and management of accounts and content comes with proper guidelines and good practices. This is further discussed in Chapter 4.

## **CHAPTER 3: RELATED WORKS**

### **3.1 Current offerings internationally**

Many international offerings deal with online memorials that help users celebrate a life well-lived with family, friends, and future generations. Many of these offerings fall under administrative legacy, wills solution, online memorial, and traditional methods of filming on location.

Safe Beyond, is a digital time capsule that lets users create future personalized messages and store their invaluable memories and moments for sharing at a future

date. This administrative platform identifies and navigates any digital assets, whether financial or at sentimental value.

Tribute.co is a collaborative video montage platform that allows users to create a group video as a gift on any occasion. Even though the platform provides efficiency in video recording and collection, users still need time to drag and drop the clips in their desired order. The time-consuming procedure of editing the video does not shorten the before the memorial service.

Flexclip, a free online video editing platform, offers templates for creating funeral slideshows and provides an easy method for creating tribute videos. However, it fails to address some of the following problems, such as time consumption to complete a legacy video. This platform requires the bereaved family to individually collate media from their loved ones and piece together videos and images with Flexclip's given memorial template.

In times of grief, it is essential if there is a platform that could simplify the funeral process. It is essential to take pressure off and create a joyous environment where memories can be shared in the creation of a collaborative work that honours an individual.

### **3.2 Re-looking into Singapore's offering**

Obits.sg, founded in Singapore in 2021, was created to make it less painful to cope with the pragmatics in the aftermath of a death. Obits' obituary helps to notify the broader community of a life-changing event in your family's history: the death of a loved one. It shows that printed obituaries can be easily replaced by social media, such as a quick message broadcast or a post. Singapore Obituaries is an online posting service that is dedicated to keeping the legacy of your loved ones alive. They collect and hold memories, both trivial and significant- in addition to performing a broadcast function in the first few days after death. These markers help to create a complete picture of the deceased person. This online platform aims to make it easy and convenient to visit and share your loved ones' memorials via the web wherever you are. They believe that planning, processes, and paperwork should not be an

additional burden on a grieving family. Having a condolence message board helps those left behind begin to heal.

A gap is observed within this online platform where it only includes obituary information, photos of the deceased, and love messages from friends and family members. Just engravings on a tombstone cannot fully represent a legacy a person has left. However, visual storytelling and representation would enable snippets of the deceased person's life story to be vividly engraved in the minds of the living. As visual storytelling creates a deeper emotional connection with the grieving families, adding meaning and consolidated memories will elevate the overall product.

There are many opportunities to embed digital craft in technologies, curation of digital possessions such as the collection of photos, or content on social media that is inherited or provided by loved ones. The digital craft could potentially be an avenue to support bereaved people in processing grief.

## CHAPTER 4: HOW *MEMORY CRAFT* WAS IMPLEMENTED

The discussion of grief structure in the previous section reveals similarities with narrative structures in film. This section describes how the stages of each structure relate to one another, and proposes these stages as the steps in the user journey towards a meaningful legacy video.

### 4.1 Mapping of film narrative journey into the mobile app

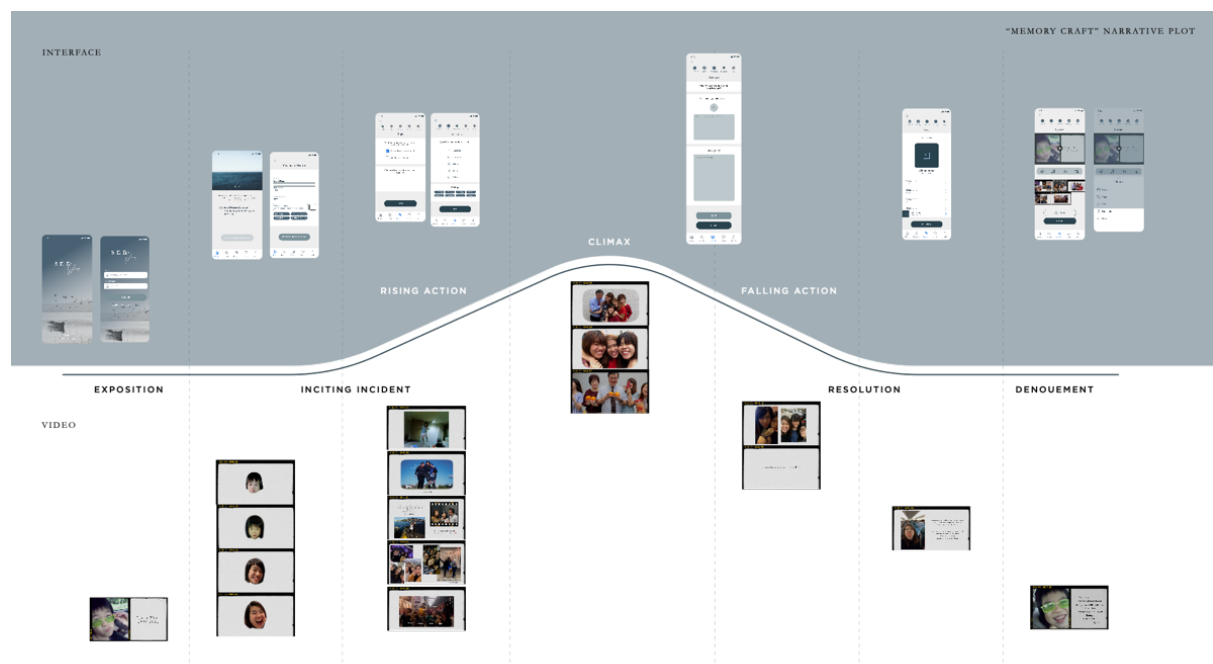


Figure 1: Film narrative framework for *Memory Craft*

The storytelling framework behind the collaborated legacy video may serve as a comfort to the bereaved. The story displays an open-ended narrative, and the more complex of these deals with the notions of immersion and experience (Witcomb A, 2015). Grief is an ongoing process which the living reconciles a new understanding that the bereaved is no longer on earth. This process of grief can be aided with recollection, collaboration, remembrance, where the living slowly finds a way out of the grief. This continues bonds between the living and the dead where bereaved mourn in different ways, personal, situational or cultural influences.

Asking the "right questions" to extract the emotional response will allow the video to pull the heartstrings. Following up on the responses will be structuring the plot

according to the framework to build the film narrative. I want to briefly discuss a five-act narrative framework as a design element for the memorial text, which comes from my expertise as a filmmaker. This film's narrative structure parallels the stages of the grief model mentioned above.

### **Exposition**

The exposition section establishes the selection of an introduction and style for the video. The first step is to direct the users to this question, "What are the important elements you want to feature?" The user's response will send the specific topic to their invitation list- family and friends. This ensures that everyone joining the legacy creation will provide the essential media according to the selected theme.

### **Conflict**

In the conflict section, we will be asking a question to understand the deceased favourite items or hobbies in life. According to the user's response, adding textured video background creates a personalized "character" to the media. Also, this would help leave the person's final words and legacy.

### **Rising Action**

The rising action section sets up the video's framework and structure. The second step was to upload 3-5 pictures of the deceased. This adds to the person's reminiscences and how life is celebrated through the display of the photos taken at the different stages of life. It would allow the audience to see how their face changed over the years.

### **Falling Action**

Step three was to upload your favourite memories of the passing's life. These memories will be curated randomly with the media sent by the invited list of people (in step 1). The photos collated would already be "tagged" into different categories and made available for the user to select. For, eg, years, location, and people.

### **Climax**

The climax occurs when family members or friends upload a voice recording, sharing some of their values, what they are most thankful for, and what they miss most about the deceased left behind. What is recorded must be typed and transcribed as a

message. It acts as the last words the users will be saying to the person, which is to thank the person that has impacted his/her life.

## **Resolution**

The resolution serves as a celebratory moment. In Step 5, the users will select their favourite song at this stage, which will be used to curate the video. Music serves as another crucial aspect of the film product. After several testing, I concluded that there are a few structural flaws in the narrative flow. The video will not be able to reach its climax and bring out emotions with the following:

1. Only instrumental music allowed
2. Importance of textured video background
3. Non-diegetic overlay of audio (e.g. rain and environment)

Therefore, a list of instrumental music lists will be provided for users. Users may also upload instrumental music which they feel is appropriate to the person they would like to remember. A Non-diegetic overlay of audio will also accompany it to enhance the effect of the video, making it more natural and reflective.

I am interested in adhering to particular emotional associations, which is why I only permit the non-diegetic overlay of audio. For example, rain is associated with sadness. With these steps above, it will be oriented towards a specific outcome (the audience's reaction). These design processes have taken into consideration the grieving stages through collation.

Curation is the act of combining existing content with new perspectives to create new meaning (Minocha and Petre, 2012). Through the curation process of the legacy video, bereaved family members and friends come together to record and embed their loved one's narratives. Such acts of remembrance can play an essential role in assisting people to cope with their loss (Katherine C, 2020). Digital curation is firmly embedded in the context of "participatory culture" where technology enables ordinary users to archive, annotate, appropriate, and recirculate media content in impactful new ways (Jenkins, et al, 2009). Within *Memory Craft*, collaboration plays an important role in reducing stress and foster a pleasant digital environment where memories can be

shared while creating a legacy video that pays tribute to an individual. The process of collaboration suggests a small percentage of reunion and it could potentially enhance the grieving process through a shared and collective collaboration.

## **4.2 Design Process**

*Memory Craft* aims to ease the pressure of an individual collating media for a funeral or memorial service. Applications designed to curate digital memories with friends and families are limited, causing essential memories such as celebrations and anniversaries to be potentially lost with time. Tapping on technology, this app gathers different forms of media and organizes them in a meaningful context. The design aims to enhance the collation and collaboration process to create a memory montage video through a simple user interface and intuitive user journey experience.

This mobile application allows bereaved family and friends to co-create their memories with their loved ones. It also comforts people in their grief, allowing a tangible legacy to be left for their loved ones who are still living. The application's features can discern whom to include, efficiency in media collation, ownership of privacy and content, and a quick turn-around time for auto-generation of a legacy video. Hopefully, these features will create a space for honouring the departed loved ones.

### 4.3 Prototyping and User Testing

In order to determine whether the process of the mobile app is functional and meets expectations, a user study of 30 participants aged 21-50 is conducted. This study has been approved by the Human Ethics Committee at Massey University (Ethics Approval #4000025952).

#### 4.3.1 First version of the Prototype

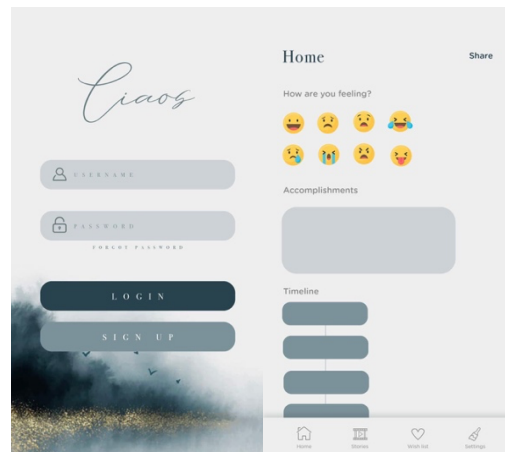


Figure 2: Screenshots of 1st versions Prototype (Login Page & Home Page)

An iterative design process is used to evaluate the concept and design of the app. My objectives was to sort out any accessibility issues in terms of aesthetic and visibility. Looking into the concepts of colour psychology, blue has a calm and relaxing effect on our psych and it makes people feel confident and secure. I have decided to use cool colours as the dominant colour as it stimulates serenity and allow users to feel at peace. The selection of serif typefaces were used for the buttons to communicate professionalism and clarity.

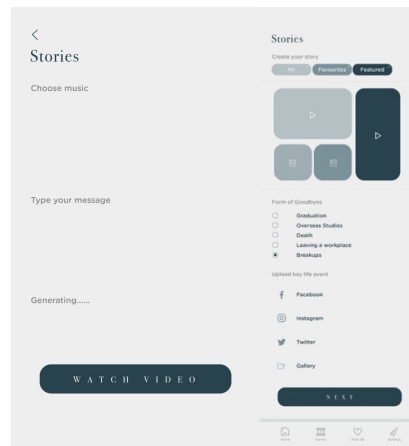


Figure 3: Screenshots of 1st version Prototype (Stories Page)

The first prototype's layout was designed based on my impression of the film narrative flow. For example, in the film narrative structure from Exposition to Resolution, it requires users to upload the "correct" media to generate a legacy video. With that concept in mind, the page layout was created in a step by step method.

After some evaluation, some changes were made to improve the overall elements of design and functionality. The colours were changed to be more evident to the user. Changes were made to the fonts as it was challenging to read, which led to difficulty finding the right button. The app's user flow was also designed to better guide the users to the next step with clear instructions.

#### 4.3.2 First Iteration

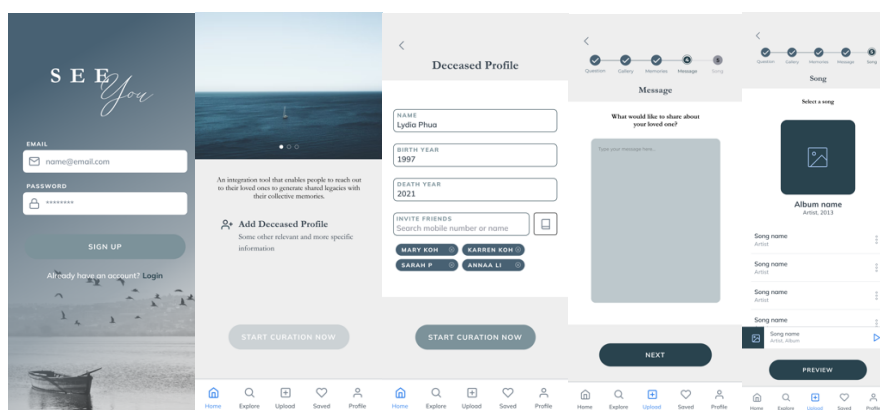


Figure 4: Screenshots of first iteration

The interviews began with general questions about their experiences with the mobile app. Participants will determine which feature leaves the maximum impact or which feature requires improvement. This ensures that every screen and button is functional

and caters to the user's needs. With human-centered design in mind, while designing this app, it is to empathize with and understand the users' needs.

1. Areas of improvement to streamline the curation process (colours, buttons, placement)
2. Understanding the participant's behaviour, pain points, and satisfaction with the new features or page sections
3. How will the product make the participants feel?

The feedback gathered suggested improvements on:

1. Choice of words

In terms of the user's experience, emotionally sensitive words are preferred over technical terms. An example is deceased vs departed. As *Memory Craft* works closely with the bereaved at moments of grief, words on the app should aim to comfort rather than poke raw nerves.

2. Clearer flow of steps

User interface wise, there has to be a more precise flow of steps visually so that users can navigate through the app in a more appropriate flow of thoughts. For example, the profile of the deceased should come in first. The final section of the app would be "inviting contributors" rather than having it in the first part. Filling in the deceased's profile brings the user straight into the project, while "inviting contributors," if placed right at the start, would disrupt the train of video creation thoughts of the user.

3. Control and freedom

A skip or back page button is added throughout the different pages in *Memory Craft*. These buttons are for "emergency exit" to leave the unwanted state without going through an extended dialogue. These supports undo and redo, allowing users to have freedom in their app.

### 4.3.3 Final Prototype

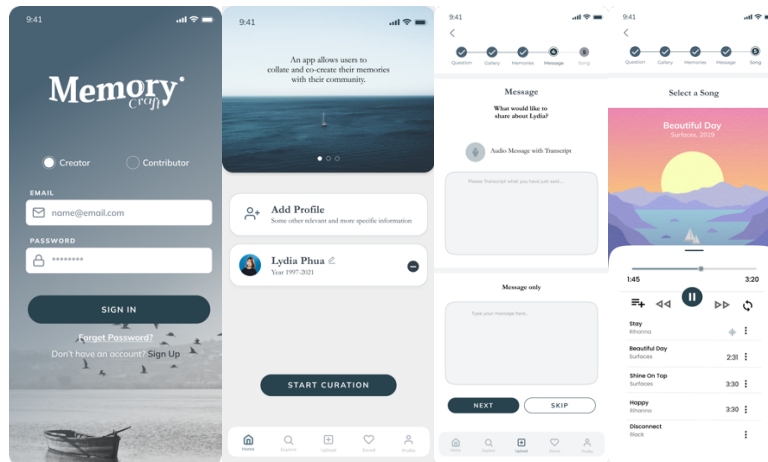


Figure 5: Screenshots of the Final Prototype

With these findings, the first iteration is refined, leading to the final prototype, as shown in Figure 5. Generally, a more minimal yet straightforward design aids and guides the users step by step to complete the curation process seamlessly.

### 4.3.4 Discussion of Findings

Information was obtained from the participants through interviewing.

#### 1. How do you feel about the curation process of uploading all the media through a step-by-step format?

For App Flow and Journey:

95% of the participants demonstrated that the step-by-step curation process is straightforward to follow. They mentioned that grieving users might not have the head capacity to think, and the steps ease their thinking process. About 5% of the participants said that the steps should allow some flexibility. Instead of limiting the number of media uploads in each step, the autonomy of media selection should be given to the users.

For Aesthetics:

From the interview, it is apparent that most participants felt that the fonts could be more prominent. Also, the colour intensity of the fonts was too light, which affected them from viewing the buttons. 87% of them could not find the button leading to the profile page. This also highlighted issues in the placement of the buttons on each page.

## 2. What additional features do you wish for?

“Will the contributors be able to view the auto-generated video and provide some feedbacks before the Creator send the video?”

~*Financial Consultant, 32*

“It would be helpful if there could be a Help button or FAQ to answer any uncertainties or questions regarding the app.”

~*Pastor, 48*

60% of the participants preferred to have a 'skip' or 'back a step' button in the curation process. They hope to quickly correct mistakes or backtrack on the choices made. Some raised concerns that they may be uncomfortable recording their voices and it would be more considerate if the users could skip these steps.

Towards the end of the interview, 96% of the participants proposed that it would be ideal for *Memory Craft* to explore the possibilities for more events and celebrations of life such as weddings, retirements, or orientation camps. They believed that *Memory Craft* simplifies the collaborative process and shares memories across family and friends. It should not only have one purpose. However, 4% of the participants felt that *Memory Craft* would be more meaningful for the sole purpose of memorialisation. They mentioned that the narrative structure flow in the legacy video might not work as well for other events in life. Also, the participants understand that bereaved family members would be emotionally charged when a loved one passes away. The funeral service would require efficiency in media collation compared to other events that could be planned.

### 3. How has *Memory Craft* impacted/ benefitted you in the process of memorialisation?

“I will use this app! The outcome of the legacy video is very cinematic and personal. It buys me more time to settle the logistical preparation for the funeral with the assurance that the video will be up somehow. It will ease my family’s burden of creating the video.”

~*Student, 26*

“The curation steps are clear. I believe that this app will be a meaningful one for my clients...”

~ *Principal Palliative Medical Social Worker, 44*

“I love the idea about the collaboration. My friends and families in Thailand, who are unable to fly in for the funeral can also contribute to the video, as we remember our grandmother. It creates a spirit of inclusivity, allowing memories to be a collective one.”

~ *Educator, 30*

“I can foresee how this app would work in different events in my life – weddings, retirement, graduation etc. These memories in life’s milestones can be stored and looked back. I like how my friends and family can participate in creating this together.”

~ *Engineer, 28*

A significant number of participants indicated that *Memory Craft* gave them new experiences, and they loved it. The interview results helped answer the research questions and provide insights to improve the app. The results show that *Memory Craft* simplifies the grieving process of an individual and creates a joyous environment where memories can be shared in the creation of a collaborative work that honours an individual.

## Ethical, Privacy and Security Considerations

As mentioned in Section 2.4, ethical considerations were integral in the design of *Memory Craft*. Figure 6 illustrates an overview of the approach that *Memory Craft* implements in privacy and security.

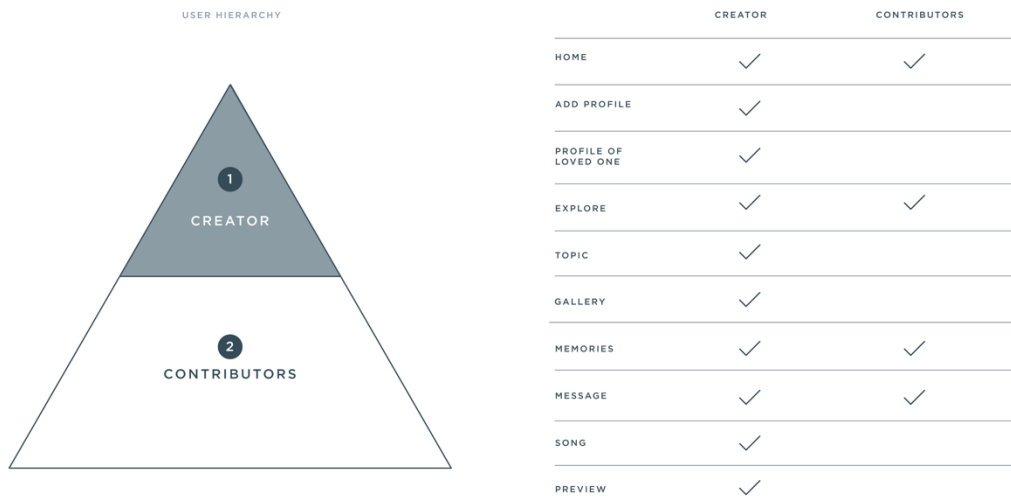


Figure 6: User Hierarchy Table in *Memory Craft*

The primary ethical rule is autonomy, which prioritizes respect for the decision-making ability of the deceased. There is a need for mobile applications to regulate a framework for the commercial world. At the same time, the value of honouring human dignity and preventing commercial exploitation has to remain aligned. To include the above practices, the autonomy of the curation process will be given to the next of kin- named Creator in *Memory Craft*. Friends and family members joining the curation- Contributors, will not be given much ownership rights compared to the Creator as seen in the hierarchy table above in Figure 6 .

Within *Memory Craft*, there were additional security features to ensure the user's ownership of privacy and content.

1. Advanced privacy controls and settings to block unwanted guests, allow only people you choose while keeping your memorial hidden from others

2. Designate trusted friends and family members as additional memorial administrators. *Memory Craft* does not allow uninvited guests to join in the legacy collaboration.
3. The collaboration feature is a way to prevent resentment and ensure each family member is pleased with the frequency with which they feature in the remembrance video. It is accomplished by obtaining pictures from the family members who contribute to the collation.

## CHAPTER 5: CONCLUSION

The following chapter summarises the exegesis and explains the research's limitations and recommendations for future studies.

### 5.1 Limitations

Limitations of this study include the small number of users represented. Even with the right demographics, we get a sense of what the community feels like, but this is not representative of the entire population. This is one approach acceptable by the community through the interview and user study of the users that mentioned *Memory Craft* was a success. As participants tested *Memory Craft*, many of them found it helpful in areas of grief. However, opportunities in other celebrations of lives have been identified.

Regarding ethical considerations, as mentioned in Section 2, my implementation allows users to take ownership of the collaboration process. However, there are some limitations to some ethical rights about security of data beyond death.

Additionally, some of the suggestions were neglected, and we cannot provide all types of services to our users. In terms of the narrative flow structure, users will need to work within the planned flow in *Memory Craft* (e.g., Only 3-5 media inputs are allowed for Step 2). This might affect the autonomy given to the users. These perimeters were set to ensure consistency in bringing out an emotive personal touch through audio and visual complications in every user's video.

## 5.2 Recommendations for Future Studies

An area of study that warrants further exploration would be the perspective of respective religions' theological input in the app. *Memory Craft* serves to provide the communal, collaborative aspect of traditional memorialisation digitally. However, there can be scope to study further aspects of the elements of memorialisation to build the app. Furthermore, other forms of collaborative processes could not be available through this app. Additionally, future studies could include other various art forms that can work as an expression of grief. It could be in the form of visual arts, drama, dance, etc., currently not within the discovery of *Memory Craft* itself.

## 5.3 Conclusion

The research findings provided an overview of a new memorialisation approach in Singapore's digital age. *Memory Craft* was created to allow users to collate individual memories and to co-create a collective shared memory with their loved ones in remembrance of the departed. According to (Bosticco, Cecila & Thompson, Teresa. 2005) and (Witcomb A, 2015), bereaved families are encouraged to collaborate and contribute to creating a fuller portrait and character of their departed loved one. Hopefully, through participatory efforts, bereaved families can derive or curate an open-ended narrative for themselves.

Today, traditional and contemporary rituals will continue to serve a significant purpose for the living in light of technological advancements that now provide online, virtual spaces for memorialisation and the opportunity to create new rituals connected with the deceased. Living in a world that advances hand in hand with technology, we reflect on our traditional practices. We realized that we continue doing some of the same things, just that the paradigm has changed and shifted. Essentially, we are still seeking common practices whose outcomes bring out similar values as traditional practices - the communal connection, and a shared experience with our loved ones. It investigates the creation of a digital platform for this embodied grief process to manifest digitally. The user testing and interviews suggest that *Memory Craft* can be used as a tool to engage bereaved family members in the process of memorialisation through collaborative efforts. It provides space for them to reflect and derive a personal response to loss and grief, potentially alleviating the communal grief.

**7,021 words**

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