

Changing Systems of Death

The ecological and economic impacts of the death industry

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Introduction

Death and dying are important parts of life, but they are complicated by grief for the dying, and by the myriad feelings experienced by their loved ones. It's something we all have to face, but rarely talk about. Those facing death have to worry about health choices, granting power for legal and financial matters, what will happen to their body, how will their family and friends mourn them, and making peace with the world. That's if they're lucky enough to be prepared beforehand. Often, families are left bereft all too suddenly, and in those moments of grief, they must make difficult choices about disposition methods, religious and cultural rites, and where the final resting place will be. To make matters worse, there is usually very little time from death to disposition, intensifying pressure and grief to make permanent decisions that reflect theirs and their loved ones' values.

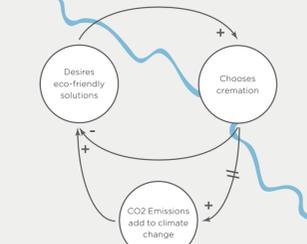
We therefore ask ourselves, how might we innovate within the death technology industry that creates services and products that are accessible, empathetic, and ecologically-friendly to our customers?

Funeral industry revenues in the burial sector are nearly \$1B in Canada, and \$13B in the United States. While cremations are cheaper, revenues still amount to \$715M in Canada, and nearly \$4B in the United States. With an aging population, it's important to invest in new technologies now to not only prepare for the future, but excel in this new market, with more accessibility, empathy, greater margins, and better service than the competition.

The Ganges has long been associated with life and the passage into the afterlife through death. Our Synthesis Map follows guideposts along the Ganges river highlighting traditional disposition methods, such as burials and cremations, and emerging methods that are more environmentally-friendly. From there, we examine the systems that a person has to interact with in order to deal with the death process. At the end, we propose a new service that intervenes at critical points in the process to achieve high accessibility, high empathy, and eco-friendliness, and how we can transition from a worldview of preservation to a worldview of renewal.

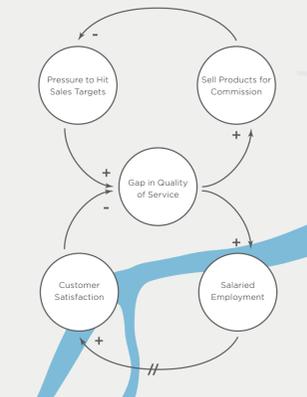
Causal Loop: Are cremations the eco-friendly option?

Cremations are touted as being eco-friendly, but they are only eco-friendly in comparison to traditional burials. Due to its popularity, its cost, and the slow process of legalizing alternative methods of disposition, people choose cremations. These cremations, while comparatively eco-friendly, still add to the problem of climate change. As climate change worsens, it fuels people's desire for eco-friendly solutions even more, even as they are contributing to the problem long term.



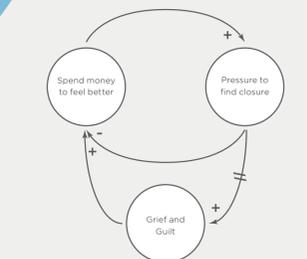
Causal Loop: Why are funerals so expensive?

The predatory behaviour in funeral homes is perpetuated by commission based business models which reinforce selling more services in order to achieve sales targets, leading to a gap in the quality of care for the customer. Often, there is a failure to recognize the customer's wishes or needs. If we take away the incentive to upsell customers, the goal of customer satisfaction returns as a metric.



Causal Loop: How does grief increase vulnerability?

The complex relationship of grief is reinforced by the pressure to find closure, which either leads to increased grief or excessive spending, as a result of trying to find peace with losing a loved one.



Service Blueprint

Our proposal is for a second horizon B-Corp Certified service system that improves on the current state system around memorial and dispositions.

While outwardly similar to today, the main difference is how early conversations are had, how they are experienced, and how the current problems of emotional manipulation and unethical upselling are pushed at key moments.

We propose a "Make a Wish"-inspired, concierge-led death planning service. From early planning through innovative channels such as AI-driven chat, data is gathered and analyzed in order to support the choices around memorial and disposition methods.

The concierge experience works to achieve the wishes of those who pass, within the bounds of what their budget and legality permit. It could be as simple as organizing a trip to wine country for friends, or as elaborate as playing shortstop in a Spring Training game. The concierge helps achieve these visions, not push clients into a particular service that they offer, or upselling a coffin. Our revenues—and client costs—are offset by a "Universal Deathcare" government rebate.

Our service also extends into the post-disposition experience. We offer the maintenance of physical memorials, data management from online services, the creation of online memorials, and grief counselling. By working within the current system, but improving the overall offering and quality of service, we believe this proposed system will help move towards our idealized third horizon.

Traditional Burials

What we consider "traditional burials" are a relatively recent practice. The current process embalms the deceased for open casket funerals, then it gets transported to the cemetery to be buried 4 feet deep in a coffin or casket made of wood and metal, surrounded by concrete walls. The process is meant to preserve the body for as long as possible. Once it's covered, the laws are regularly trimmed and chemically treated to preserve the grass. This process and the way cemeteries look today has been a tradition since the early 20th century in North America. Prior to that, graves would be on communal grounds, such as church plots, and plain coffins would be stacked on top of one another.

Today, only 28% of Canadians are buried when they pass, while in the United States, that number rises to 47%. However, because burials last so long, cemeteries holding multiple generations of people are still being maintained and new cemeteries further from the city must be built to accommodate future plots.

Materials Used Per Year (USA)
90,700 tonnes of steel
1.45 million tonnes of reinforced concrete
4 million square acres of hardwood trees
3 million litres of embalming fluids

Intention
Prevent decay
Provide a barrier between the body and nature

Average Cost
\$12,500 CAD
\$10,000 USD

Materials Used Per Year (India)
50 million trees

Emissions Per Year (India)
8 million tonnes of CO2

The Ganges River Metaphor

We chose the Ganges river as our grounding place because historically it is a holy place for departure from this earth. Traditionally Hindus believe that having your ashes touch the Ganges river, a holy river, would free one from the cycle of rebirth. However, the Indian government was forced to put restrictions on this ritual practice in Varanasi because of the issues that arose from inequality and the affordability of wood for bodies to be fully cremated.

This metaphor led us on a journey to re-imagine what a 'holy' farewell could look like if we were to attempt to change the Funeralary Industry. The metaphor synchronized well with the Greeks' myth of crossing the river Styx to get to the underworld and therefore we took on the challenge of how we might be better boated as we help people reach their final resting place in peace.

Cremation

While cremation has existed for millennia, it is becoming an increasingly popular disposition method in North America. In 1980, only 5% of Americans were cremated. Today, it's up to 53%. In Canada, 72% of dispositions are cremations.

There are different methods throughout the world, but the process is incredibly energy intensive. In India, over 1000 pounds of wood are used for a conventional cremation. In North America, we tend to have more crematoriums, but bodies are still burned individually at around 650°C for 1.5 hours. Some bodies can take longer, depending on their weight. In terms of ecological impact, bodies can contain metals and materials (such as mercury from dental fillings) that are incredibly toxic to the environment. Some crematoriums are equipped with second burning chambers, at 925°C to bring emissions below regulation. However, the filtration system can be easily overloaded if a body is extra large, or if the chambers aren't designed to handle high usage.

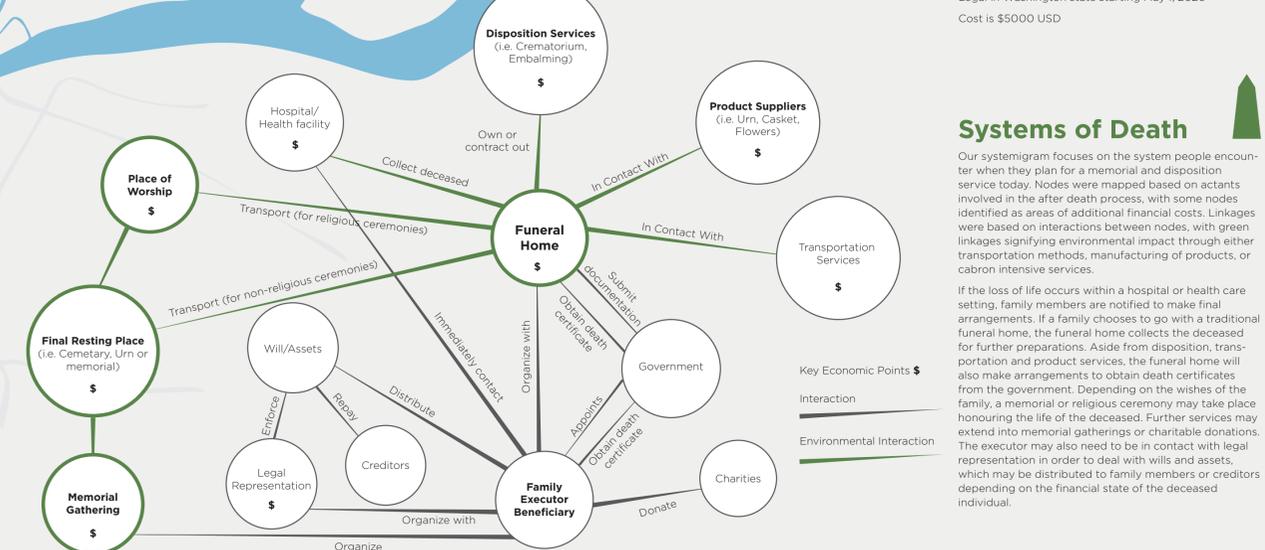
What's left—ashes and bits of bone—are put into an urn, and either buried, taken home, or turned into a memento using the carbon in the ashes. The ashes are considered sterile, so even if scattered (it is illegal to scatter ashes in most jurisdictions), they do not provide a source of nutrients for the earth.

Materials Used Per Year (USA)
4.5 billion cubic metres of natural gas

Intention
Less resources used than burials
More economical and pragmatic
In some cultures, to release the soul

Emissions Per Year (USA)
360,000 metric tons of CO2

Average Cost With Memorial Service
\$5500 CAD
\$1000-\$4000 USD



Systems of Death

Our systemic diagram focuses on the system people encounter when they plan for a memorial and disposition service today. Nodes were mapped based on actors involved in the after death process, with some nodes identified as areas of additional financial costs. Linkages were based on interactions between nodes, with green linkages signifying environmental impact through either transportation methods, manufacturing of products, or carbon intensive services.

If the loss of life occurs within a hospital or health care setting, family members are notified to make final arrangements. If a family chooses to go with a traditional funeral home, the funeral home collects the deceased for further preparations. Aside from disposition, transportation and product services, the funeral home will also make arrangements to obtain death certificates from the government. Depending on the wishes of the family, a memorial or religious ceremony may take place honouring the life of the deceased. Further services may extend into memorial gatherings or charitable donations. The executor may also need to be in contact with legal representation in order to deal with wills and assets, which may be distributed to family members or creditors depending on the financial state of the deceased individual.

Journey	Pre-Memorial							Memorial						Post-Memorial			
	Education	Consideration	Memorial Planning	Death Planning	Estate Planning	Data Planning	Care Providers	Death Transportation	Disposition Process	Memorial Transportation	In Person Memorial	Online memorial	Remains disposition/Hand off	Data Management	Grief Counseling	Memorial upkeep	Remembrance Service
Touchpoints	Websites Commercial Advertising	Friends Websites Commercial Advertising	App Phone Email Chat Video In Person	App Phone Email Chat Video In Person	App Phone Email Chat Video In Person	App Phone Email Chat Video In Person	Print Materials In Person	App Phone Email Chat Video In Person	In Person	In Person	In Person	App Phone Email Chat Video In Person	In Person	App Chat Data	App Phone Email Chat Video In Person	App Phone Email Chat Video In Person	App Phone Email Chat Video In Person
Front Stage	Consultations	Personalizing Memorial	Disposition method	Handling of Assets	Handling of Assets	Handling of Assets	Handling of Assets	Transportation Service	Attending Disposition	Transportation Service	Event managing memorial	Event managing memorial	Transportation to final resting place	Manage Social Media Tech Data	Counselling Services (1:1 and Group)	Maintenance of Physical memorial	Organize memorial on defined basis
Back Stage	Ongoing Signal Scanning	Organize transportation options	Liaise with Government Contacts	Liaise with banking and investment contacts	Liaise with banking and investment contacts	Work with contacts at Social Media and tech companies	Work with contacts at Social Media and tech companies	Handling of the body	Organizing Disposition Method	Handling of Remains	Handling of Remains	Structuring and Presentation of data	Handling of Remains	Organize with contacts at respective firms	Medical records/HIPPA (equivalent) Compliance	Event Organization	Event Organization
Support Processes	Available legal memorial options within jurisdiction	Government Identity Services	Banking and investment services	Banking and investment services	Banking and investment services	Social Media Companies	Social Media Companies	Government contacts and info resources	Licenses and Permits	New methods for transporting innovative disposition outcomes	Setting up Memorial	Attending Memorial	Organization and planning of final resting place	Integrated APIs to help speed up process and Security	Care providers data sharing services and policies	Site specific maintenance services and policies	API and database for memorial data

Overall Value Proposition

A concierge-driven, make a wish death planning service, in the palm of your hand, accessible from anywhere.

- Pre-Memorial**
Campaign to discuss death early and often (parallel world - Bell Let's Talk)
Early planning and easy updates through application.
Education on new and innovative disposition methods clients may not be aware of.
Full service planning with an emphasis on celebration and what's possible for our clients.
- Memorial**
Takes care of all behind the scenes activity—including permits and negotiations—to make wishes come true.
- Post-Memorial**
Data management: ensuring that your social media and tech data are as accessible to your family and friends as you want it to be.
Memorial planning and maintenance: we take care of any physical memorials for you, and plan ongoing yearly memorials as per client wishes.
Grief counselling services: both virtual, group, and one-to-one.

