Article

The Seeds of Futures Engagement: Oslo's *Future Library* and Mortality Awareness on TikTok

Rachel Cranmer[1]*, **Jenny Liu Zhang[2]***

[1]*Midwest Futures, United States; Edinburgh Futures Institute, University of Edinburgh, Scotland, United Kingdom, cranmerrachelj@gmail.com*
[2]*Edinburgh Futures Institute, University of Edinburgh, Scotland, United Kingdom, jenny@jenny.world*

Abstract

In 2014, artist Katie Paterson launched Future Library, a public art installation of 1,000 trees planted in Nordmarka forest in Oslo, Norway. Each year, a distinguished author submits a confidential manuscript to the library, kept under wraps until the project concludes in 2114, when all 100 works will be printed on the trees planted 100 years prior. A form of long-running artwork, Future Library acts as a time capsule that will exceed the lifetimes of most people alive at its founding. Through a thematic and causal layered analysis of 576 comments on a viral TikTok video about the project, we explore how Future Library incites reflections about mortality on social media, exemplified by complex emotions, existential reflection, and curiosity about the future. This preliminary study concludes that this video's particular audience — young, city-dwelling American women — may begin to engage in futures thinking through cognitive and affective processing of mortality, and that long-running art may be a viable form through which artists and futurists can foster interest in futures stewardship and thinking in this audience and beyond.

Keywords

Future Library, Causal Layered Analysis, Futures Literacy, Mortality, TikTok

Introduction

The futures studies field is growing rapidly alongside changing technology and the rise of concern over the state and future of the world. Futures studies has successfully discussed futures in informative, quantitative ways but struggles to transformatively engage the public and empower futures literacy, or the ability to critically think about and "use" futures (van Lente & Peters, 2022; Pouru-Mikkola & Wilenius, 2021). However, art holds potential for nurturing futures thinking and literacy as well as inspiring belonging, developing self-efficacy and agency, supporting meaning-making, and ultimately leading to action and activism in young people (Häggström & Schmidt, 2021).

Long-running artworks

A new type of artwork emerges that engages with deep time, "distinctive for the very long time frames within which [futures] are conceived of" (May & Holtorf, 2020, p. 267). These authors refer to them as "long-running artworks." Richard Fisher was among the first to catalog and classify these works in *The Long View* (2023) as projects that prompt their audiences to transcend the present and comment on time. Some artworks are categorized as "future gifts" for their time capsule-like quality. Other long-running artworks fall into categories such as "slow time" projects, "acts of upkeep", and "grand symbols," which are diverse in aesthetics, duration, engagement processes, and intended outputs. The *10,000 Year Clock*, *Time Pyramid*, and *Letters of Utrecht* projects are only a few of the

dozen long-running artworks underway (Fisher, 2023). Currently, there is no established corpus or on-going research investigating public reaction to long-running artworks. This preliminary study attempts to be the first to explore the subject through one specific piece, *Future Library* (2014-2114).

Future Library

Future Library (Paterson, 2014) is an art installation in Oslo, Norway that planted a thousand trees in the Nordmarka forest in 2014 where they will grow for the next 100 years. Each year since 2014, *Future Library* invites one renowned author to a "handover ceremony," a celebration in the forest during which the writer submits a manuscript to *Future Library* trust that is to stay unpublished and confidential. Manuscripts are kept in the "Silent Room" vault of the Oslo Public Library until 2114, at which time all 100 books will finally be published on paper made from trees from the forest. The resulting 100-book library will stand as an ode to the passage of time, speaking to the interconnectedness of ideas, art, and nature. The goal of *Future Library* contributors is "to conceive and produce a work in the hope of finding a receptive reader in an unknown future" (Paterson, 2014); the project thus takes on the form of a time capsule that will exceed the lifespans of those who saw its founding and most alive today.

A preliminary TikTok study

In May 2023, the authors of this paper were invited to attend *Future Library* handover ceremony where they independently documented the event to create and publish a 65-second long TikTok video to communicate Paterson's artistic vision. This TikTok video garnered 607,776 unique views, 21,000 shares, 148,000 likes, and 655 total comments. Factors like TikTok's user demographics, algorithm, and artistic interpretation shape the findings from these reactions. Though free-to-use, TikTok is a short-form video format with a majority young audience between ages 18-34 (Ceci, 2023). TikTok also has "sides," or niche virtual communities, fueled by its recommender system (Smith, 2021), relinquishing audience control and hashtag interpretation to an algorithm. For example, hashtags like #future do not seem to attract a futures thinking audience; most videos with this tag cover unrelated topics like sports and options trading (TikTok Ads., n.d.a.). Meanwhile, tags like #fiction, #margaretatwood, and #oceanvuong attracted heavy attention from "BookTok," an influential subculture with over 189.9 billion videos that review and discuss books, credited with revitalizing the print book industry (Rozaki, 2023; Bateman, 2022). As a result, the algorithm may have skewed reactions towards book-centric users rather than those interested in futures thinking. Furthermore, factors like imagery, script (see Appendix A), videography, music layover, and hashtags used (see Appendix B) may have also contributed to the video's success with specific audiences. Thus, the authors are aware this study represents a small slice of social media discourse regarding futures thinking: namely, the reaction of young adults in or adjacent to the BookTok community.

Methods

The authors coded the 576 public video comments on their TikTok video and unpacked the results in a causal layered analysis (Inayatullah 1998, 2019) to explore how this demographic of TikTok users related to *Future Library*. Due to inherent uncertainties of the platform, the nature of short-form virality, and the limited and preliminary dataset, this research focused on qualitative findings. The authors collected data for this study on October 1st, 2023, 19 weeks after the video's posting; this study does not include later interactions. Since TikTok's terms of service permit third-party use of public interactions, ethical clearance was unnecessary for this study. Nonetheless, this analysis excludes personal information including usernames.

Video and audience

The authors of this paper documented their attendance of the *Future Library* ceremony day on May 21, 2023. The video introduction was filmed in the forest with the opening line, "I'm sitting in the middle of a library. The only thing is, it doesn't exist yet and it won't until 2114." The remainder consists of footage from the forest and the Oslo Public Library. Later, a brief voiceover explanation of the artwork was applied over the footage, as well as

"Holocene" by Bon Iver (2011) as a background song. The video (Not Yet Weathered Rach, 2023) was posted with a text description and a series of hashtags (see Appendices A and B). The majority of the video engagement occurred in the days immediately following posting. TikTok-provided creator analytics (Figure 1) show the average viewer of the TikTok video about the *Future Library* was an 18–34 year old female, residing in the United States in a metropolitan area. Reception of the video can be seen as largely positive with 24.35% of individual viewers "liking" the video.
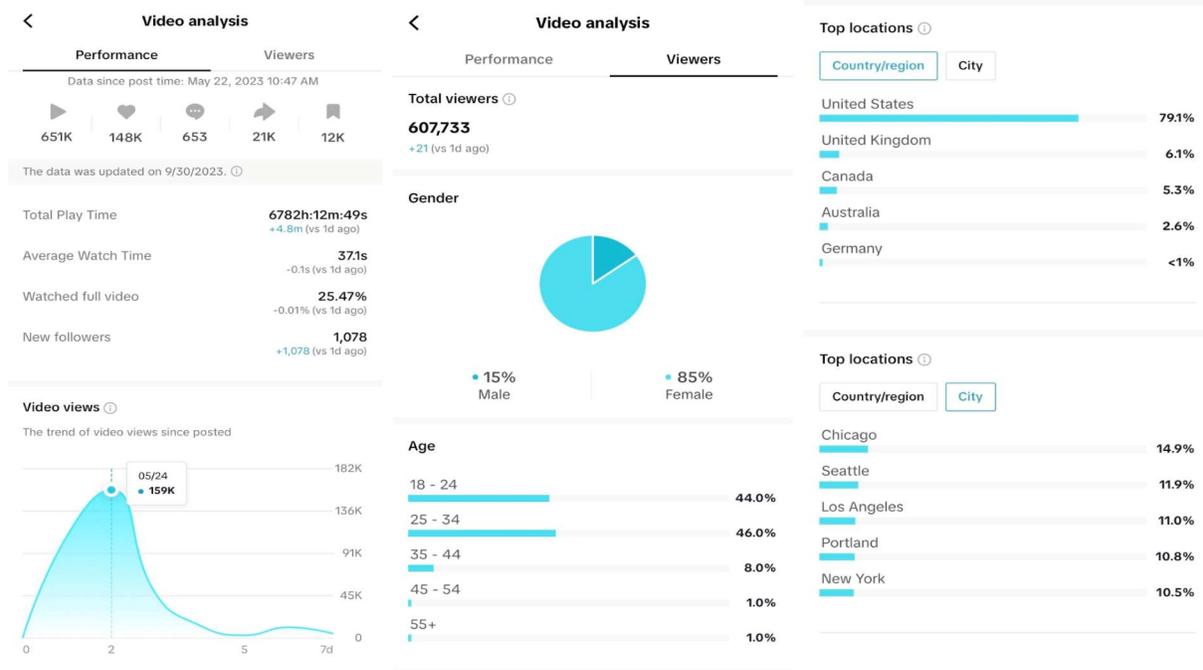

Fig 1: Future Library video analytics collected October 1, 2023

Study design
The authors embarked on a hybrid thematic and causal layered analysis to qualitatively answer their research question: how did the responding demographic react to the *Future Library* artwork on TikTok, and what is their worldview of the present and future? To document the reactions in the 576 TikTok comments, the authors conducted a thematic analysis based on three code categories: descriptive codes, emotion codes, and value codes, as defined by Saldaña (2013). While descriptive codes answered "What is going on here?" (Saldaña, 2013), emotional and value codes encapsulated commenter priorities and interests. This process generated a codebook of 58 unique codes and 2,598 total codes that were analyzed against the comment data for consistency (Braun & Clarke, 2022). The authors then distilled this data into themes, evaluating prevalence, similarities, and differences between unique codes. Based on the popularity of code groups and how distinctly they reflected a reaction to the *Future Library* artwork, 10 main themes emerged (Table 1).

To answer the next question, "what is this audience's worldview of the present and future?", Inayatullah's (1998, 2019) Causal Layered Analysis (CLA) helped further analyze the reactions' underlying narratives, as well as generate discussion of potential paths for their futures literacy and engagement. Through systematizing the 10 themes into the four layers of litany, systemic causes, worldview, and myth and metaphor, CLA frames the insights that emerged in the coding process into a story about the audience's worldview and organizing metaphors.

Thematic Analysis

The authors' 10 main themes are represented in Table 1. Themes are organized in descending order based on the number of associated codes in the data. Comments across themes are not mutually exclusive. Figure 2 visualizes comment distributions across themes.

Table 1: Themes of Reactions to Future Library TikTok

| Theme shorthand	Theme statement	Comment examples
Positive Emotions 54.0%; n=311	Positive expressions of awe, appreciation, love, humor, happiness, excitement, hope, and inspiration.	"wow extraordinary!" "Write this book. An elderly person that plans a heist with their booknerd froends [*sic*] in the home. I would devour this."
Complex Emotions 49.8%; n=287	Complex or overwhelming expressions including crying, existential reflection, longing, desperation, denial, bargaining, FOMO, jealousy, surprise, sadness, anger, anxiety, confusion, and fear.	"Why am I crying over this???" "This must be simulataneously [*sic*] the coolest and saddest project ever 🥺"
Mortality 34.0%; n=196	Awareness of one's own mortality and that of others. Denial or challenging of mortality. Reflections on the length of a human lifetime, the passage of time, and afterlife.	"This is the first time I've wanted to live to 140 😵" "god fuckin damn we're really gonna all be dead by the time that vault opens 😆"
Self-Efficacy 19.8%; n=114	Confidence about staying alive and strategizing ways to enjoy the outcome of *Future Library*.	"I-ll be 109.. well now i'm determined to live to 109 😤."
Books 19.7%; n=113	Passion about the value of both reading and writing books, especially *Future Library* books.	"Devistating [*sic*] to know there are so many books I'll never read"
Inclusion 14.8%; n=85	Desire to be included or participate in *Future Library*'s process or result.	"Welp... I won't be able to make it to launch day... it's cool. Super chill."
Sharing 12.8%; n=74	Sharing of the video with others and engagement in comment discussions.	"This is the best thing I've seen on the internet! Just watched with my 11 & 13 yr old and they were awed ❤"
Stewardship 10.6%; n=61	Concern for the care, protection, and stewardship of the planet, people, and/or cultural heritage.	"This made me cry. This is so beautiful. Good people plant trees, the shade they will never sit under, for the future generations to come."
Future generations 8.8%; n=51	Reflection on how *Future Library* or "the future" would be received by future generations.	"What's crazy is that people who are alive right now will be alive when these are published in 2114"
The Future 8.2%; n=47	Reflection on the concept of "The Future" and engagement in future speculation.	"I'm sorry but this is stupid. Only because nobody is going to see them. We are going to have a nuclear war before 2050"

Number of Comments Per Theme
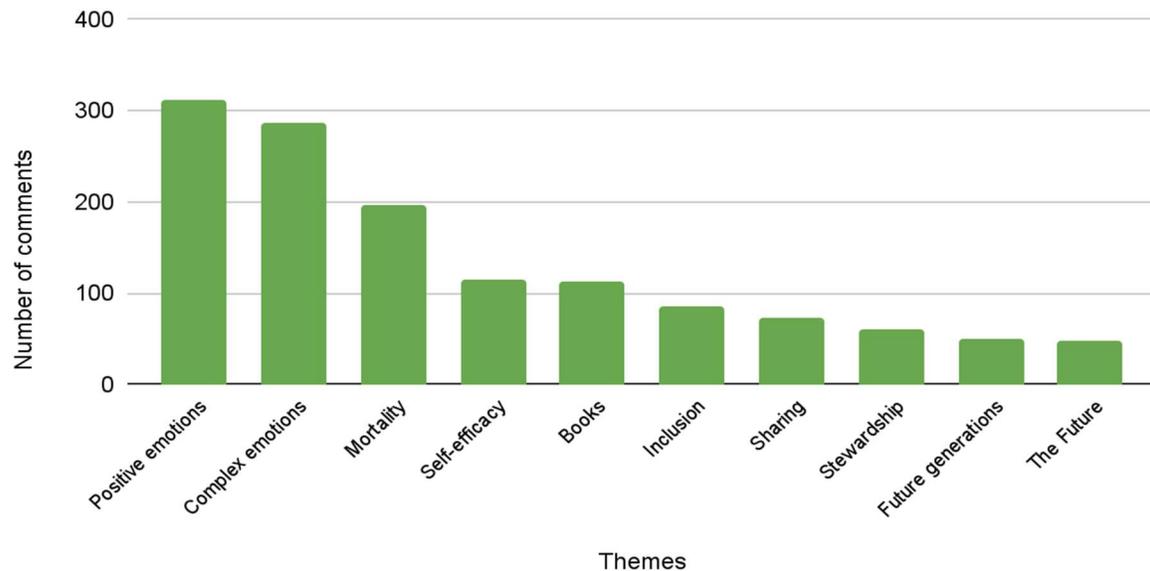
Fig 2: Number of Comments Per Theme

Three themes stood out: "Positive Emotions," "Complex Emotions," and "Mortality." These three form the basis of the authors' CLA, but the next seven themes further color the analysis. "Likes" on the comments largely yielded similar results to the comments themselves, with "Complex Emotions" and "Mortality" ranking highly in both. Furthermore, automated algorithmic ranking for comment display affects comment popularity. This not only affects the attention certain comments receive, but also the subsequent comments people are inclined to leave. As such, Tiktok as an algorithmically curated platform may influence the progression of audience reactions.

Causal Layered Analysis

CLA builds upon the thematic analysis by crafting it into a narrative about this audience's worldview regarding the future. The authors focus on mortality as CLA's major organizing theme as much of the data directly and indirectly relate to it. Based on emotions and values-based reactions, many comments are also individualistic and reveal this demographic's self-centered worldviews about the present and future. Awe, FOMO, consideration of future generations, and mortality salience have contributed to reactions classified as "complex emotions." For some, these complex reactions prompted deeper exploration of what the future may be like, what a desirable future is, and one's role in this future despite or because of death. While few comments followed that path of contemplation, analyzing and juxtaposing the majority with these responses provides futurists, academics, and artists with insights into how long-running artworks can influence more positive worldviews, myths, and narratives.

Table 2: *CLA layers and comments*

CLA Layer	Perspective	Associated comments
Litany	Mortality awareness	"It just really hit me like truly that I am going to die. And I am not going to see so many of the things I want to see." "I literally just thought "Wow can't wait to see when it's done" and then I realized. I won't. I'll be dead. Incredibly evocative! 🖤"
Systemic causes	Bias toward egocentricity and death anxiety	"I'm gonna be dead when the vault opens I'm so saddd 😭" "you guys are giving up too easy, i will stubbornly live to be 117 for this."
Worldview	Expanding frames of reference, post-death FOMO, and the power of story	"I love this, it's like a promise that the future WILL have libraries and I think that's a good future" "Okay, fine, the bookworm in me is going to make me live to 120 out of crippling FOMO." "It makes me sad that I won't be here to read any of those books. There there, they exist, but I will never get the chance to know what's in them." (↪ reply) "Agreed but also so helpful to confront it and use it to reframe how we view our lives and the our time here"
Myth and metaphor	Symbolic immortality through stewardship: "Good men plant trees whose shade they shall never sit in"	"I'm floored at how complex my emotions are about this. I feel small and insignifcant [*sic*], and connected to soemthing [*sic*] much larger than me at the same time" "This made me cry. This is so beautiful. Good people plant trees, the shade they will never sit under, for the future generations to come"

Litany: Mortality awareness

The litany layer of CLA analyzes the observable events, statements, or comments people made in response to the video and artwork. While the video does not specify that the viewers will be dead by the time the artwork concludes, *Future Library* does inevitably drive its audience to consider their lifespan and mortality. For example, many were prompted to do the math to find how old they would be or have to live to see the artwork's conclusion. Overall, 34.0% (n=196) of commenters explicitly considered their own life spans or processed the reality of death, often for the first time. The large representation of complex emotions (49.8%; n=287), as well as positive emotions (54.0%; n=311), may be attributed in part to this focus on death. Reflections on one's own mortality, or "mortality salience" (Horner et al., 2021; Routledge et al., 2004), induced diverse responses including age and lifespan calculations, vows to overcome death, and existential reflection, as in comments like "This is the first time I've wanted to live to 140 🧓" as well as indirectly referencing mortality through complex emotions such as self-reported crying.

Awe

"Awe" was the greatest emotion observed in the comments, both independently and alongside mortality salience. A mix of awe and mortality salience likely contributed to the high number of purely emotional responses, as in

comments like "why am i crying???" and those featuring crying emojis. Awe also appeared in realizations like "I literally just thought 'Wow can't wait to see when it's done' and then I realized. I won't. I'll be dead. Incredibly evocative! ❤️ " Such emotional responses might be explained as a reaction to realizations, including around mortality, and relatedly "beauty tears," or a response that occurs when confronted with "elegance or beauty, including nature, music or visual arts, and feature feelings of awe or experiencing chills" (Zickfeld et al., 2020).

Systemic causes: Bias toward egocentricity and death anxiety

Most commenters either directly or indirectly processed *Future Library* through a lens of mortality salience, often by confronting elevated emotions like awe or anxiety. By examining these responses through psychological and cultural systems that influence this demographic, this systemic causes layer reveals this audience's predisposition toward self-centered emotional processing and complications in grappling with death due to taboos and fears of extinction.

Egocentricity

Over half of comments used the first-person perspective and reflected on the project's implications selfishly. Comments spiraled into personal feelings of crying and FOMO and lacked or overcompensated in self-efficacy to stay alive until 2114. There is no evidence that emerging adults *are* more narcissistic (Grubbs, 2019), but lack of life experience may make death a more taboo or troubled topic. Bypassing the project's intention to inspire positive reflection about the future to instead focus on one's own feelings and desire for inclusion, as in comments like "I'm gonna be dead when the vault opens I'm so saddd [*sic*] 😭," may simply be a coping response against such new, intimidating existential feelings. These emerging adults are also more likely to be confident in their abilities as a psychological reaction to an often-difficult life stage (Arnett, 2013), so to be faced with the concept of inexorable mortality may prompt overconfidence in self-efficacy, stemming from denial or fear. This was observed in comments like "you guys are giving up too easy, i [*sic*] will stubbornly live to be 117 for this," where people confidently planned to live long enough to see the books published. Furthermore, "emotional egocentricity bias," or the tendency of individuals to interpret external information, events, or objects through a personal perspective, is most strong in children and young adults as the parietal lobe develops (Riva et al., 2016). In other words, a mix of cultural and developmental factors may account for these individualistic biases.

Death and extinction

Despite COVID-19 increasing death awareness in the West (Jacobsen & Petersen, 2020), mortality, dying, and death anxiety remain infrequently confronted in U.S. discourse (Schott, 2021). However, concern about humanity's physical longevity is a popular topic, as exhibited in the comments. Humans have always been fearful of the future (Schultz, 2015) but the 21st century comes with novel challenges; believing the future will be bad is linked to the growing sense of "post-normal times" involving mounting ecological crises, rising conflict, and "the real possibility of collapse as a result of planetary transgressions," as described by futurist Z. Sardar in *On the Nature of Time in Postnormal Times* (2021). Slang like "doomerism" (Osaka, 2023) reflects this growing pessimism; young Americans increasingly challenge capitalism (Newport, 2021) as eco-anxiety, degrading mental health, and distrust in global governments skyrocket (Hickman et al., 2021). The upshot is "ambient adolescent apocalypticism" (Morrison, 2022) and young adults from diverse economic, social, and geographical backgrounds actively discuss these anxieties, especially online. Thus, the artwork's complex responses to mortality salience are influenced by both the audience's psychological stage and real modern societal conditions.

Worldview: Expanding frames of reference, post-death FOMO, and stories as stewardship

Colored by young age, environmental factors, and lack of exposure to death, this demographic's worldview builds upon individualistic and underdeveloped attitudes toward death but also shows budding interest in how stories provide continuity after death. This worldview can be interpreted as the early steps in the Futures Learning Cycle (Figure 3). The video introduced viewers to new knowledge and cognitive models, especially around mortality,

producing an immense affective response in the comments. Some commenters progressed further through the Futures Learning Cycle to existential questioning through reflection and speculation. Others furthermore experienced solidarity in their cognitive, emotional, and existential reactions through socializing via likes and comments, helping them move toward empowerment and collaboration in negotiating possible futures. Thus, the audience has a nascent but expanding worldview and the artwork yields promise in facilitating futures thinking at several levels of the cycle.
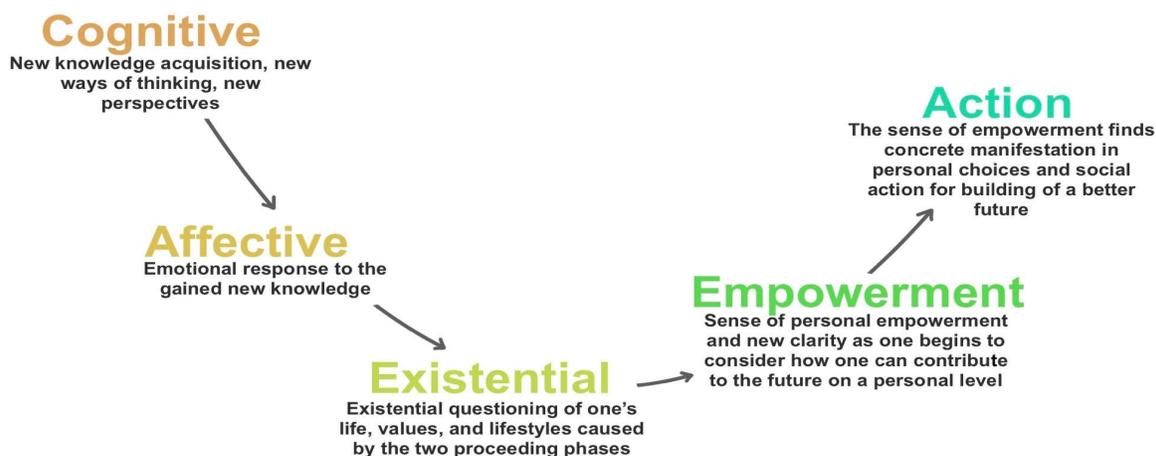
Cognitive
New knowledge acquisition, new ways of thinking, new perspectives

Affective
Emotional response to the gained new knowledge

Existential
Existential questioning of one's life, values, and lifestyles caused by the two proceeding phases

Empowerment
Sense of personal empowerment and new clarity as one begins to consider how one can contribute to the future on a personal level

Action
The sense of empowerment finds concrete manifestation in personal choices and social action for building of a better future

Fig 3: Representation of Futures Learning Cycle by Rogers and Tough (1998), amended by Pouru-Mikkola and Wilenius (2021)

Elevated emotions as prompts for reframing

The *Future Library* video inspired a range of heightened emotions. On the positive end, commenters felt awe, hope, and humor which are crucial to futures literacy. Futurist Rob Hopkins (2019, p. 175) defines awe by a quality of vastness in space, time, and connection that "makes us feel smaller and experience a dissolution of the self." Awe has the ability to expand observers' typical frames of reference (Piff et al. 2015) and may lead to stronger imaginations, compassion, and collectivism (Monroy & Keltner, 2022; Bai et al., 2017; Hopkins, 2019; Keltner, 2023). On the complex end, mortality salience and the finality of time triggered sadness or fear. In these cases, some used their overwhelmed feelings to reconsider their personal positions; some emotional expressions inspired hopeful and curious discussions from others.

The active reframing caused by emotions is exemplified in an exchange where a commenter wrote "It makes me sad that I won't be here to read any of those books. There, they exist, but I will never get the chance to know what's in them." A second commenter replied to this, "Agreed but also so helpful to confront it and use it to reframe how we view our lives and the our [*sic*] time here." This follows the claim by Tonn et al. (2006) that active thinking about the future is correlated with optimism. While "doomerism" is high amongst youth on social media (Osaka, 2023), few comments actually suggested a worldview of nihilism and inaction. When they did, they often saw replies debating the possibility of various existential scenarios. Such back-and-forths are necessary preludes to adopting broader perspectives, including perceiving multiple malleable "futures" (Godhe & Goode, 2018). Thus, heightened emotions can encourage reflection and speculation, which can be productive for futures thinking: people can confront their fears of the future as well as collectively form agentic relationships with the future, an emerging value in this worldview.

Humor regarding death and mortality, another complex emotion, also served a similar purpose toward reframing: comic relief diffuses death anxiety (Schott, 2021; Lambert South, 2020) and in conjunction with crying or visceral processing "can influence how meanings course through the veins of our social body, shaping our coping and

survival practices in contemporary life" (Boykoff, Maxwell, and Osnes, 2019). In fact, those less inclined toward humor for coping were more susceptible to anxiety triggered by thoughts of mortality (Morgan et al., 2019). The significance of humor in the comments shows the power of this emotion to turn jarring reactions into potential joy or amusement, priming commenters to stay calm, feel more bonded with one another, and continue reflecting.

Post-death FOMO

Commenters also notably claimed "Fear of Missing Out" or FOMO, the fear of social isolation or exclusion frequently felt and experienced through social media by young adults (Przybylski et al., 2013). This most frequently manifested as proclamations to physically survive until 2114, as in "Okay, fine, the bookworm in me is going to make me live to 120 out of crippling FOMO," which garnered 938 likes. Death anxiety and FOMO stem from existential concerns and unfulfilled life experiences (Przybylski et al., 2013), yet notably absent from existing literature is an exploration of *post-death FOMO*, which the authors define here as envious feelings toward experiences occurring after one's death. However, while traditional FOMO on social media involves alienation rooted in fear of social rejection, post-death FOMO is universally experienced due to the inevitability of death for all in the comments. This collective realization of post-death FOMO may, in contrast to traditional FOMO, increase a sense of community, as evidenced by comment threads and "like" activity. Thus, commenters that publicly recognized their mortality may have experienced less death anxiety and deeper connection with other commenters, as research on high school students and death education suggests (Testoni, et al., 2020). These social effects may be positive for futures thinking, showing movement from existential to empowerment in the Futures Learning Cycle.

Stories have power

As validated by BookTok's prevalence, young people care about stories, fiction, and books and are invested in how these works provide comfort (Jerabek & Muoio, 2017), influence the world, and are passed onto future generations. Despite other egocentric attitudes, this demographic deeply recognizes stories as cultural tools with influence beyond the personal realm. Young people are sensitive to "master narratives" or cultural stories that foster a shared understanding of who we are and how we live (Nelson, 2001). Some master narratives are useful while others including those of capitalism, colonialism, and nationalism are frequently challenged on TikTok. Ordinary people simultaneously offer up alternative stories for the world, or "counterstories," that are shared instantly across the world, spurring unprecedented social movements. Thus, young people on platforms like TikTok recognize storytelling's influence beyond entertainment and as time capsules of cultural heritage and vessels for collectivity, communication, and change.

This respect for books in the context of *Future Library*'s ecological, regenerative thinking may have led commenters to newfound realizations about social and natural capital (Camrass, 2023). As an example of "living heritage," the books served as intermediaries for relationships between the present and the future, allowing people engaged with them to perceive social interactions across generations and develop a wider, collective sense of community (Acros-Pumarola et al., 2019). As Harrison et al. (2020, pg. 485) wrote about the fragile state of heritage in looking toward a challenging future, "by reframing heritage as future-making practices… we suggest that these various practices of assembling and caring for the future might be creatively redeployed to generate innovation, foster resilience, [and] encourage sustainability." Through grappling with the fact that present artifacts may outlive them and impact others beyond themselves, this audience is reminded of the power of storytelling to shape social understanding and drive change. In other words, books served as a proxy for reflecting on personal continuity after death, alleviating negative feelings toward mortality salience and encouraging worldview expansion toward empowerment and action in the Future Learning Cycle.

The *Future Library* also foregrounds the evolving nature of the library as a physical site for living heritage. Currently the *Future Library* stands as an artwork, a symbol, and process of collection more than a library. Not only will *Future Library* operate differently come its 2114 launch, but so too could libraries as institutions themselves. Inayatullah (2015) speculates, for example, how the term "library" may not signify a collection of books stewarded by a librarian but take on other agencies as a digital hub of knowledge and innovation, a community center, or a publisher of works. *Future Library* combines the traditional concept of a library as a collection with the novel

interaction of long-term knowledge curation. It also facilitates publication for a community of authors. This suggests that libraries can be more than just places for immediate access—they can also be sanctuaries for future thought.

Myth and metaphor: "Good men plant trees whose shade they shall never sit in"
The final myth and metaphor layer of CLA asks "what responses to *Future Library* would be most desirable if the goal is increasing futures thinking and literacy?" What deep cultural patterns does this audience need to continue shifting their worldview from overwhelming emotions and selfish participation and survival to one built on principles of collective care, ecological and cultural heritage, and stewardship for future generations? One strategy to reframe big emotions around mortality salience is to seek "symbolic immortality," or one's legacy after death (Wade-Benzoni, 2019), as opposed to physical immortality. Arguably a primary human drive, this ability to ponder one's post-death impact is found to increase with age and autonomy, of which young adults have less. Therefore, young adults may be less inclined to think about their legacies (Drolet et al., 1990; Horner et al., 2021). However, the high number of comments exhibiting complex emotions like awe and existential curiosity demonstrates that this audience is primed for worldview expansion. One top comment read, "I'm floored at how complex my emotions are about this. I feel small and insignificant [*sic*], and connected to something [*sic*] much larger than me at the same time," receiving 8,711 likes. Another wrote "Were so insignificant… and thats ok [*sic*]."

The desired worldview of accepting such vastness (Hopkins, 2019) simultaneously with responsibility for future generations was less common, but one comment encapsulated it well: "This made me cry. This is so beautiful. Good people plant trees, the shade they will never sit under, for the future generations to come." Some demonstrated this myth by seeking contribution to the *Future Library* mission specifically as writers. Writing and personal creation is a means of contemplating one's "postself," or one's imagined reputation after death; this approach to symbolic immortality mitigates death anxiety (Wojtkowiak & Rutjens, 2011) and increases a sense of agency and stewardship responsibility in the present. Others generally noted the power of stories to influence society for generations to come, as one commenter wrote about *Future Library*: "all we can pass to the future is stories and this is such a beautiful way to do that." As this audience's worldview expands, they will increasingly recognize *Future Library* not just as a repository of books for future enjoyment but a gift of wisdom and influence on the possible realities ahead.

Existential reflection has the ability to both inspire a distressing "crisis of meaning" or, instead, a rise in meaning-making, resilience, and satisfaction in the vastness of existence (Vötter, 2019). Many commenters may have felt the former, but by socially demystifying those complex feelings through online and intergenerational dialogue and exploring productive, story-driven solutions together, this demographic could use positive existential metaphors and creativity to increase autonomy and comradery, improving futures literacy and shared future-making. As one commenter remarked, "If only the whole world could internalize this concept of stewardship & carry it forward. What a beautiful place that could be."

Emerging solutions
This myth of "planting trees whose shade they shall never sit in" encourages futures engagement in this youth demographic. In less than 100 years, the trees of the *Future Library* forest will be cut down. These trees exemplify this concept of symbolic immortality in themselves: their deaths will bring new stories and perspectives into the world. Young people are on a similar precipice as they also have the ability to seek symbolic immortality and strive toward legacies, which will not only make confronting mortality less scary but foster better futures for those who come after. In this way, the audience of *Future Library* resembles the forest: a diverse and growing community with incredible potential for shaping stories of the future.

Existential reflection, especially beyond oneself and for future generations, challenges individualistic death anxiety and encourages the pursuit of symbolic immortality. This analysis also revealed that valuing stories beyond their form as books but as powerful artifacts of heritage empowers young adults to envision their post-death legacies and immortalize them through creative, narrative avenues. Therefore, sayings and stories — both fiction and nonfiction— that encourage existential reflection and consideration of future generations can further push this demographic toward collective action and future-making. In the face of mortality awareness, myths, narratives, and

mantras, especially in the form of long-running artworks, can shift the perspective of the future as a place of impending death, exclusion, and fear to one of many possible destinations imbued with hope, stewardship, and collective action. *Future Library* can be seen as a physical site for empowering such narratives, and as one commenter noted, the project is a "promise that the future WILL have libraries and I think that's a good future."

Conclusion

Overall, *Future Library* reveals the systemic, psychological, and cultural positions of this demographic as they become aware of the reality of mortality. Despite initial individualistic reactions attributed to their young psychological and biological stage, continued reflection on their affective responses and existential status can actively propel this audience toward regulation of their anxieties, collective futures thinking, and confidence in stories as stewardship tools. This study also highlights the opportunities of platforms like TikTok to engage new audiences in reflective and speculative discourse. Though *Future Library* may be unique for its timeline, aesthetic, community involvement, and ecological and heritage themes, the authors conclude that long-running art in general may be effective for promoting the early stages of futures thinking, particularly by prompting mortality awareness, inspiring awe, and expanding frames of reference toward symbolic immortality.

Conflict of interest and disclosure

The authors have no conflicts of interest to declare regarding this article. Although they know the *Future Library* artist and trust, attending the ceremony was a free, public event. Their decision to write about the artwork was based purely on personal interest, without any influence to write favorably or unfavorably.

References

Arnett, Jeffrey Jensen. "The evidence for generation we and against Generation me." *Emerging Adulthood*, vol. 1, no. 1, 2013, pp. 5–10, https://doi.org/10.1177/2167696812466842.

Bateman, Kayleigh. "This Is How TikTok Helped Propel Book Sales to a Bestselling Year." *World Economic Forum*, 2022, www.weforum.org/agenda/2022/03/tiktok-booktok-print-books-sales/.

Bon Iver. *Holocene*. 2011

Boykoff, Maxwell, and Beth Osnes. "A Laughing Matter? Confronting Climate Change through Humor." *Political Geography*, vol. 68, 2019, pp. 154–163., https://doi.org/10.1016/j.polgeo.2018.09.006.

Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. SAGE Publications.

Camrass, K. (2023, September). *Regenerative futures: Eight principles for thinking and Practice* . Journal of Futures Studies. https://jfsdigital.org/articles-and-essays/2023-2/vol-28-no-1-september-2023/regenerative-futures-eight-principles-for-thinking-and-practice/

Ceci, L. (2023, October 25). *Global tiktok user age and gender distribution 2023*. Statista. https://www.statista.com/statistics/1299771/tiktok-global-user-age-distribution/

Drolet, J.-L. (1990). Transcending death during early adulthood: Symbolic immortality, death anxiety, and purpose in life. *Journal of Clinical Psychology*, *46*(2), 148–160. https://doi.org/10.1002/1097-4679(199003)46:2<148::aid-jclp2270460205>3.0.co;2-t

Fisher, Richard. (2023). "The Persuasive Power of Symbols and Stories." *Long View: Why We Need to Transform How the World Sees Time*, WILDFIRE, S.l., 2023, pp. 259–284.

Godhe, Michael, and Luke Goode. "Critical future studies - a thematic introduction." *Culture Unbound*, vol. 10, no. 2, 2018, pp. 151–162, https://doi.org/10.3384/cu.2000.1525.2018102151.

Grubbs, Joshua B., et al. "Emerging adult reactions to labeling regarding age-group differences in narcissism and entitlement." *PLOS ONE*, vol. 14, no. 5, 2019, https://doi.org/10.1371/journal.pone.0215637.

Häggström, M., & Schmidt, C. (2021). Futures literacy – to belong, participate and ACT! *Futures*, *132*, 102813. https://doi.org/10.1016/j.futures.2021.102813

Harrison, R., Desilvey, C., Holtorf, C., MacDonald, S., Bartolini, N., Breithoff, E., Fredheim, H., Lyons, A., May, S., Morgan, J., & Penrose, S. (2020). *Heritage Futures: Comparative Approaches to natural and Cultural Heritage Practices*. University College London.

Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, R. E., Mayall, E. E., Wray, B., Mellor, C., & van Susteren, L. (2021). Climate anxiety in children and young people and their beliefs about government responses to climate change: A global survey. *The Lancet Planetary Health*, *5*(12). https://doi.org/10.1016/s2542-5196(21)00278-3

Hopkins, Rob. *From What Is to What If: Unleashing the Power of Imagination to Create the Future We Want*. Chelsea Green Publishing, 2022.

Horner, D. E., Sielaff, A. R., & Greenberg, J. (2021). Autonomy, meaning, and the mediating role of Symbolic Immortality. *Journal of Humanistic Psychology*, 002216782199137. https://doi.org/10.1177/0022167821991376

Inayatullah, S. (1998). Causal layered analysis: Poststructuralism as method. *Futures, 30*(8), 815-829.

Inayatullah, S. (2015). From knowledge keepers to knowledge creators. *Public Library Quarterly*, *34*(4), 310–317. https://doi.org/10.1080/01616846.2015.1106888

Inayatullah, S. (2019). Causal layered analysis a four-level approach to alternative futures relevance and use in foresight. *Futuribles, 12*(3), 123-135.

Jacobsen, M. H., & Petersen, A. (2020). The return of death in times of uncertainty—a sketchy diagnosis of death in the contemporary 'corona crisis.' *Social Sciences*, *9*(8), 131. https://doi.org/10.3390/socsci9080131

Jerabek, I., & Muoio, D. (2017, November). *Coping through escapism: New study reveals how today's youth deals with stress*. Cision PRWeb provides efficient communication tools to continuously engage with target audiences across multiple online channels. https://www.prweb.com/releases/2017/11/prweb14908239.htm

Keltner, D. (2023). *Awe: The new science of everyday wonder and how it can transform your life*. Penguin Press.

Lambert South, Andrea, et al. "Communicating death with humor: Humor types and functions in death over dinner conversations." *Death Studies*, vol. 46, no. 4, 2020, pp. 851–860, https://doi.org/10.1080/07481187.2020.1716883.

May, S., & Holtorf, C. (2020). Uncertain Futures. In *Heritage Futures: Comparative Approaches to natural and Cultural Heritage Practices*. essay, University College London.

Monroy, Maria, and Dacher Keltner. "Awe as a pathway to mental and Physical Health." *Perspectives on Psychological Science*, vol. 18, no. 2, 2022, pp. 309–320, https://doi.org/10.1177/17456916221094856.

Morgan, Jessica, et al. "Exploring the role of humor in the management of existential anxiety." *HUMOR*, vol. 32, no. 3, 2019, pp. 433–448, https://doi.org/10.1515/humor-2017-0063.

Morrison, E. (2022, December 14). *Have we overburdened gen Z with fears of the future?*. Psychology Today. https://www.psychologytoday.com/us/blog/word-less/202212/have-we-overburdened-gen-z-with-fears-of-the-future

Newport, F. (2021, November 20). *Democrats more positive about socialism than capitalism*. Gallup.com. https://news.gallup.com/poll/240725/democrats-positive-socialism-capitalism.aspx

Not Yet Weathered Rach. [@notyetweathered]. (2023, May 22). *Year 9 out of 100: It was an honor to attend the future library ceremony surrounded by deeply passionate people there to celebrate a future we long for…* [Video]. TikTok. http://www.tiktok.com/t/ZT8PoqKWY/

Osaka, S. (2023, March). *Why climate 'doomers' are replacing climate 'deniers.'* The Washington Post. https://www.washingtonpost.com/climate-environment/2023/03/24/climate-doomers-ipcc-un-report/

Paterson, Katie. "Future Library, 2014 - 2114." *Future Library*, Future Library Trust, 2014, www.futurelibrary.no/.

Paterson, K., Hovind, A. B., & Schalansky, J. (2023, August). *Future Library Announcement: Future Writer, Future Readers*. *Edinburgh International Book Festival*. Edinburgh; Baillie Gifford Sculpture Court.

Piff, P. K., Dietze, P., Feinberg, M., Stancato, D. M., & Keltner, D. (2015). Awe, the small self, and prosocial behavior. *Journal of Personality and Social Psychology*, *108*(6), 883–899. https://doi.org/10.1037/pspi0000018

Pouru-Mikkola, Laura, and Markku Wilenius. "Building Individual Futures Capacity through Transformative Futures Learning." Futures, vol. 132, 2021, p. 102804, https://doi.org/10.1016/j.futures.2021.102804.

Przybylski, A. K., Murayama, K., DeHaan, C. R., & Gladwell, V. (2013). Motivational, emotional, and behavioral correlates of fear of missing out. *Computers in Human Behavior, 29*(4), 1841-1848.

Riva, Federica, et al. "Emotional egocentricity bias across the life-span." *Frontiers in Aging Neuroscience*, vol. 8, 2016, https://doi.org/10.3389/fnagi.2016.00074.

Rogers, Martha, and Allen Tough. "Facing the Future IS NOT FOR WIMPS." *Futures*, vol. 28, no. 5, 1996, pp. 491–496, https://doi.org/10.1016/0016-3287(96)00021-3.

Routledge, C., Arndt, J., & Sheldon, K. M. (2004). Task engagement after mortality salience: The effects of creativity, conformity and connectedness on worldview defence. *European Journal of Social Psychology*, *34*(4), 477–487. https://doi.org/10.1002/ejsp.209

Rozaki, Elisavet. "Reading Between the Likes: The Influence of BookTok on Reading Culture." *Utrecht University* , 2023.

Sardar, Z. (2010). Welcome to Postnormal Times. *Futures*, *42*(5), 435–444. https://doi.org/10.1016/j.futures.2009.11.028

Sardar, Z. (2021, June). *On the nature of time in Postnormal Times* . Journal of Futures Studies. https://jfsdigital.org/articles-and-essays/vol-25-no-4-june-2021/on-the-nature-of-time-in-postnormal-times/

Schott, G. (2021). 'I know death. he's got many faces:' the presence of death in Young Peoples' Media. *Mortality*, *26*(4), 367–375. https://doi.org/10.1080/13576275.2021.1987669

Schultz, W. L. (2015). A brief history of futures. *World Futures Review*, *7*(4), 324–331. https://doi.org/10.1177/1946756715627646

Testoni, Ines, et al. "Enhancing existential thinking through death education: A qualitative study among high school students." *Behavioral Sciences*, vol. 10, no. 7, 2020, p. 113, https://doi.org/10.3390/bs10070113.

TikTok Ads. (n.d.a). Creative Center - #Future. TikTok for Business. https://ads.tiktok.com/business/creativecenter/hashtag/future/pc/en?rid=fr2uy2i132

Tonn, Bruce, et al. "Cognitive representations of the Future: Survey Results." *Futures*, vol. 38, no. 7, 2006, pp. 810–829, https://doi.org/10.1016/j.futures.2005.12.005.

Unicode. Full emoji list, V15.1 (n.d.). https://www.unicode.org/emoji/charts/full-emoji-list.html

van Lente, H., & Peters, P. (2022). The future as aesthetic experience: Imagination and engagement in future studies. *European Journal of Futures Research*, *10*(1). https://doi.org/10.1186/s40309-022-00204-8

Vötter, B. (2019). Crisis of meaning and subjective well-being: The mediating role of resilience and self-control among gifted adults. *Behavioral Sciences*, *10*(1), 15. https://doi.org/10.3390/bs10010015

Wade-Benzoni, Kimberly A. "Legacy motivations & the psychology of Intergenerational Decisions." *Current Opinion in Psychology*, vol. 26, 2019, pp. 19–22, https://doi.org/10.1016/j.copsyc.2018.03.013.

Wojtkowiak, J., & Rutjens, B. T. (2011). The postself and terror management theory: Reflecting on after death identity buffers existential threat. *International Journal for the Psychology of Religion*, *21*(2), 137–144. https://doi.org/10.1080/10508619.2011.557008

Zickfeld, J., Seibt, B., Lazarevic, L. B., Zezelj, I., & Vingerhoets, A. (2020). *A Model of Positive Tears*. https://doi.org/10.31234/osf.io/sf7pe

#future trending hashtag on TikTok, see #future analytics. #future Trending Hashtag on TikTok, see #future analytics. (n.d.). https://ads.tiktok.com/business/creativecenter/hashtag/future/pc/en?rid=fr2uy2i132

#futuregenerations trending hashtag on TikTok, see #futuregenerations analytics. #futuregenerations Trending Hashtag on TikTok, see #futuregenerations analytics. (n.d.). https://ads.tiktok.com/business/creativecenter/hashtag/futuregenerations/pc/en?rid=fr2uy2i132

Appendix A
Video Script

"I'm sitting in the middle of a library. The only thing is, it doesn't exist yet and it won't until 2114. In 2014, Scottish artist Katie Paterson started the *Future Library* project in Oslo, Norway. A section of forest outside Oslo was cut down, the lumber used to build a vault in the Oslo public library. Then, 1,000 trees were replanted. Every year between 2014 and 2114, a prominent author attends a ceremony in the future forest. Asked to conceive of and produce a work in the hope of finding a receptive reader in an unknown future, they hand over a manuscript they wrote for the library. Following the ceremony, the manuscript is then taken to the *public* library where it's placed in the vault where it can be seen but not read. There the works will stay, held in trust until 2114 when they are finally taken out, published, and read for the first time. They will be printed on paper made from the trees planted in 2014.

100 years isn't really so long. But this project offers a reflective focal point to think about our own mortality and what cultural and ecological heritage we are leaving for people to come. People who deserve good books and a safe future."

Appendix B
Hashtags Used

#futurelibrary; #library; #future; #climatechange; #environmentaljustice; #fiction; #nonfiction; #futuregenerations; #katiepaterson; #oceanvuong; #judithschalansky; #margaretatwood; #solarpunk; #hopepunk

Name hashtags include the *Future Library* artist and a few project contributors, including the two writers who appeared in the video participating in the 2023 handover ceremony.