From Relevance Theory to Viable Futures: Exploring the functional relationships between theoretical approaches to understand the interplay between anticipation, mediation, futures and systems

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Abstract

Contemporary organizations operate within conditions of persistent uncertainty, where the capacity to perceive and respond to environmental signals depends not only on the information available, but on the structures, relationships, and media through which signals become relevant. This research asks: if uncertainty is an inherent condition of reality, how might relevance be consciously embedded increasing organizational viability in perceiving, translating, and acting upon signals? A narrative synthesis approach brings together literature from Relevance Theory, anticipatory systems, media and mediation theory, systems thinking, organizational cybernetics, and Futures Literacy, to trace recurring patterns across disciplines and recursive levels of organization. The Viable System Model (VSM) was selected as an example to examine organizational behaviour due to its ability to diagnose systemic viability and adaptation to change. The synthesis suggests that relevance can be understood as a recursive systemic function through which perception, mediation, anticipation, translation, regulation, and action continually shape one another, and that viable systems may increase their capacity to adapt to uncertainty by preserving diverse relevances and anticipatory variety while creating mechanisms through which those differences can become intelligible and actionable.

Keywords: Relevance, Futures Literacy, Systems Thinking, Viable System Model, Anticipation

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Dedication

To Sarah, for always reminding me to skate in straight lines and write something as good as anything else in the genre. Thank you always, forever grateful for your love, support and laughter. Your patience is legendary. Snort.

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Preface

The joke, “I’m new here” is one of my favourites because it can be almost universally applied, reminding everyone that this is a new moment, even if we feel that we have been here before. This major research project identified a place where a bridge might be built in process, not in theory, that may help research outcomes. Process language is more difficult than outcome language in my opinion, as it can be more vague. As a result, I ask for patience because the language I use might be tricky when discussing matters from this perspective, but I hope to entertain as much as moving the needle toward a deeper understanding of the functions we put ourselves in.

This work was inspired partially by my experiences in the Canadian film and television industry, and the questions of media professionals and scholars who at times stand back and ask behind closed doors…is Canadian media irrelevant? And are the workers in the industry irrelevant to the system of media creation and distribution? It is well known that media can be a passion industry, that churns and burns people out, or can make the people who stay in it sick, bitter or worse (I do write this out of an abundance of love for the people in the industry, as many have the largest hearts I’ve ever had the pleasure of coming across), but do we have to accept the current conditions forever or might there be a path for a more sustainable participation for everyone involved?

My first attempt at this project (yes, I am new here) was to understand the dynamics of relevance as it is in the Canadian media industry and how we might a better understanding of how relevance functions in media, lead us toward audience engagement? While that went well and I was far down the path of developing insights, strategies and near future scenarios with different system structures, I had a nagging feeling at the pit of my stomach that something was off. I had two acts of a three-act story. The climax being those wonderful strategic options but what about the third act? The one when things either get wrapped up or progress into a new story. Life isn’t a story and we cannot predict tomorrow but we should try to understand the potential secondary effects of our primary intervention strategies.

With no illusions thinking that a paper might change the lives of others, the mere possibility of affecting former coworkers, friends and loved ones, led me to feel the central duty of anyone theorizing or practicing anything that changes the lives of others. I feel the need to understand how potential suggestions might impact others. Even if they weren't all real people to me, I still feel that sense of duty. What follows is the result of moving from a case of the problem to what I now see as the problem and the first steps of a much longer journey.

Chapter 1 – Framing the issue

"...Tudo vale a pena, Se a alma não é pequena..."

Fernando Pessoa, from Mar Portugués, in Mensagem (1934).

"...Everything is worth it if your soul is big enough..." (author's translation...)

It might not be a typical choice to start a research paper with a potentially intense quote, but it illustrates the purpose of this work beautifully. Everything matters and nothing matters, depending on your perspective. As a result, this work was done iteratively, as the scope expanded and contracted with understanding. For the sake of clarity, this research journey will be told narratively with the least amount of jargon possible while still respecting the distinct meanings within disciplines. The purpose is to bridge concepts and theories to arrive at a framework that highlights the recursiveness of relevance and the need to further understand systemic viability from different perspectives as functions of what is systems do, not how we would like them to function. As Stafford Beer said "the purpose of a system is what it does," (Beer, 2002) meaning the outcomes and actions are embedded into the systems themselves and that we need to pay attention to what systems do not necessarily how we think they perform. This is why opinions like the one shared by Mark Musselman (2025), strike to the heart of this paper, is Canadian made media meaningless by design because of risk aversion? Or is there something deeper at play in the structure of the industry itself that maintains its current outputs?

This project began as an exploration of the tension between economic viability, self-expression and audience connection. This tension is summed up quite nicely by Canadian film director Matt Johnson who pointed out during an interview with CBC, "...Canadian is almost a marker of almost indistinction. This sort of inside joke: if you say something looks 'really Canadian,' it almost seems like an ersatz American." The humor of that statement is

not lost on me, ersatz is defined as “being a usually artificial and inferior substitute or imitation” (Merriam-Webster, 2026).

This is not an isolated feeling as industry data seems to support his claim. Canadian made films represented 3.3% of total box office revenue in Canada in 2023 and averaged 2.73% over the previous decade (Nordicity et al., 2024). In a year where many people around the globe supported an entirely Canadian intellectual property and “went to the cottage” (Sicondolfo et al., 2026), to support Heated Rivalry illustrating again that homegrown stories can resonate at home and abroad, there seems to be a lack of consistency in producing these hits. The industry is facing a potential $200 million CAD decline in financing which would lead to a overall reduction of $1 billion CAD for production budgets across the country (Directors Guild of Canada (DGC), 2025). Unfortunately, the viewing hours of Canadian content (Cancon) may justify this reduction as there was a 7% decline in viewer engagement in 2024/2025 (Canadian Media Fund (CMF), 2025). There is also ongoing call to place audiences at the centre of activities, shifting from a “make to make” model to a “make to connect/engage” model that centres a who will watch, why and how approach to increase impact (Government of Canada, 2026).

A concern about commercial viability is not limited to Canadian film and television as a “structural talent drain” (Nordicity, 2026) of artists, such as musicians, leaving Canada for the U.S. as soon as they achieve financial success. This has the knock-on effect of removing the potential long-term benefits of their success on the ecosystem that helped create them.

This pattern of talented individuals leaving Canada got me interested in the outliers that grow their audiences within the country and individuals who return from other markets. One exceptional example of this is the work of Alex Sarian with Arts Commons in Calgary, Alberta. In *The Audacity of Relevance*, Mr. Sarian takes the bold step of recognizing the fact that “non-profit arts have been going through decades of declining relevance” and that it might not be about developing audiences only or marketing, it could be that “we’re doing it wrong or people don’t care anymore” (Sarian, 2024, p. 31). He goes on to say that such a

reality is difficult thing to accept but the central argument of his work is that we can do something about it and if we do, as he did, audiences will grow in line with the relevance of the work, connection with the audiences and importantly with the organizations' connection with its workers.

To be clear, this work evolved from the premise of leaving Canada to gain market relevance and evolved from this case of a problem to a much larger issue. Within the dynamics of individuals and companies leaving, what happens to those who are left behind? Is there a possibility of a viable and thriving Canadian arts sector that enables lifelong careers? These thoughts suggested that there is a need to understand relevance as it scales from concept to organization because we may all win with better systems that consider everyone in them.

What you will gain from reading this paper is an understanding of the relationships between existing theories to advance knowledge of how relevance functions in a systemic way. I make no claim at creating new individual theories. The contribution of this paper is building a bridge between theories that could suggest ways to enhance future systems and future's literacy methodologies.

1.1 - Research purpose and questions

Relevance can be defined as a verb, meaning "to bring up or to lift (as in "to elevate")," (Ali Jasemi, 2026; Kozyreva et al., 2023), or as a noun, meaning "the degree to which something is related or useful to what is happening or being talked about" (Cambridge University, n.d.). As this research is interested the process that systems undergo, relevance will be defined using the verb use describing the dynamic of bringing something to one's attention.

Understanding how relevance functions in systems and between them can be further abstracted as a larger issue. If there is a disconnect between what an organization sees as relevant to a desired outcome and that is ignoring or unable to connect with other systems, then the problem expands to one of selection.

Organizations and individuals may have environmental indications of change that may affect their desired outcomes but may face the issue of not being able to interpret them or are unaware of their existence. In the language of futures literacy, these indicators are called signals of change (Ansoff, 1975; Cevolini, 2016). Signals are a paradox in relation to relevance because all signals that become relevant must be strong by being brought to awareness. This is why teams are so important when it comes to understanding change at a large scale but even that understanding might be affected by what members think is relevant. Adding media into the equation complicates the interaction further as they change the dynamics of what is seen, which will be covered in this paper when discussing media studies.

In an era of overwhelm, signals must also be managed so that individuals and organizations feel as if they can act on what they know (Ali Jasemi, 2026; Kozyreva et al., 2023). However there is debate over what is truth and misinformation in statistics and how quantitative forms of knowledge creation can be used to misguide people (Zhu, 2026), making the issue of selection and relevance worse.

This creates an environment where systems are either under threat, or under a perceived threat from uncertain factors. I wish to make the point that I agree with anticipation and futures studies in that the future is unknowable and the environment is always expanding, so uncertainty will always exist (Tuomi, 2019).

Now this leads to the central research question of this paper, if uncertainty is a part of reality, how might relevance be consciously embedded increasing organizational viability in perceiving, translating, and acting upon signals?

If there is a relationship to anticipation, how will that understanding help us maintain viability for different entities in a system. Viability for the purposes of this paper will follow the definition used by the Viable System Model (VSM), as the ability of a system to work “as an integral whole” that maintains an identity that distinguishes it from the systems that surround, enclose it and that it encloses it (Beer, 1981, pp. 108, 195).

These points of inquiry can be broken down into the following secondary questions:

1. How does relevance function at an individual level and how does that evolve with individuals in the context of organizations?

This question leads us to note the potential recursive nature of relevance. It should be noted that recursion is a systems thinking term that describes the behaviour of systems to contain others and be contained by others, and can be considered a separate ontology (Velardo, 2016). A conceptual example of recursion is a storyline within a story. Your characters are existing separately going through their journeys, in a story that contains all of them and contains all of their narratives as well. Each story affects each other directly and indirectly adding up to a complete narrative. A visual example would be a hall of mirrors that are pointed at each other, creating a seemingly infinite number of mirrors that are all the same but slightly different that contain one another. This leads to the next question.

2. How do recursive levels of systems communicate with each other? What is lost or gained in that conversation?

By communication, I do not mean that an organization literally sends out communications to its members but how do they communicate? What structural tool do they use and what is enabled or disabled with that medium? This shifts our thinking from what is relevant to whom, but how and why is relevance generated in and between systems.

3. Lastly, how might anticipation and relevance add to the regulation of signals within a viable system?

This issue goes beyond forecasting and traditional modelling. It also shifts from futures literacy in terms of using the future in a pluri-epistemic way to reveal and utilize anticipatory assumptions and processes (Miller, 2012, 2018), toward an understanding that regardless of our assumptions, considerations of possibility, plausibility or desirability, viability of our futures must be taken into consideration. I believe this is imperative because the Earth does not care whether or not humanity exists within it, it will remain viable for life regardless of our existence. Less dramatically, our systems bend us toward the functions we embed in them.

1.2 – Building a theoretical bridge across fields

There is extensive literature on each component of embedding relevance for systemic viability.

Relevance theory examines and explains selective cognition through pragmatic linguistics (Padilla Cruz, 2016; Sperber & Wilson, 1987) and relevance as a general concept is covered extensively in philosophy, information science, cultural studies and more. Systems thinking examines organizational behaviour and breaks down further into organizational cybernetics that explains how viable organizations exist and distribute functionality toward that aim (Beer, 1984; Leonard, 2009; Ramage & Shipp, 2020; Reynolds & Holwell (Retired), 2020). McLuhan and McLuhan devised laws of media that examine how different communication methods structure perception (2017). Boundary object theory developed by Star and Griesemer describes a way that coordination becomes possible between different communities (1989). All of these research areas have spurred practical applications in the time that followed since there creation. For example boundary object theory has been utilized to develop and assess co-design (where designers, researchers or practitioners and their participants co-create the study and results) methods(Niño Caceres et al., 2026), and McLuhan's tetrad has been used. to think about better ways to invent products (Thomas, 2007). All the research has an undercurrent of working with relevance for improving understanding for individual and organizational outcomes.

This suggests that there might be a way to bridge between these concepts and theories with relevance at the centre to open up potential methodologies and practical use cases of a larger scope of understanding. This study aims to investigate whether a theoretical bridge can be built and if so, what it may suggest as future research for embedding relevance in systems.

While each of the theories have their own contexts, subtle differences but they overlap in addressing the same systemic problem of awareness filtering for use, that amplifies or reduces perceived relevance of individuals and/or organizations.

To summarize, a change in the world will have knock on consequences that create feedback loops with our perceptions of what matters, and more upstream of that, becomes visible to us and bounds what we think matters. The sequence that this study has encountered is,

1. Environmental uncertainty and expansion interact with,
2. Individual perceptions,
3. Which is mediated by what they understand as a relevant signal,
4. And acted upon by the individual based on what they anticipate will have the desired outcome,
5. And from an organizational perspective, that action is either translated to the larger community to mobilize,
6. Which leads to further regulation of the relevant signal,
7. That regulation may aid or detract from viability,
8. And changes the environment.

The change in environment leads to the sequence starting all over again. This reveals the cyclical and recursive nature of the relationship between the theories.

The central contribution of this paper is the idea that relevance can be thought of as a concept that acts as a medium that filters itself at an individual and organizational level. More technically, relevance acts as a recursive systemic function rather than just as individual cognitive judgements. The paper proposes that relevance can be mediated through structures and that a functional view of the relevances (a term that I will be using for this paper, describing the plural nature of relevance), that influence futures, can improve our understanding of what is perceived, communicated, acted upon, and whether or not those ideas are leading to viable systems.

1.3 - Chapter breakdown

The rest of the paper will proceed as follows:

Chapter 2 will outline the transdisciplinary approach taken by this research, outlining the unit of analysis for the study and the position of the research. As transdisciplinary research begins with a focus on the "theoretical unity of knowledge, in an effort to transcend disciplinary boundaries," moving toward a common good and "humanistic relevance for life and dignity" (Lawrence et al., 2022, p. 47), it was selected as the long term aim of this project is to embed societal relevance for creatives and viable futures. This approach was combined with narrative synthesis of existing literature to see if preliminary theoretical understanding would suggest further investment into effectiveness and implementation reviews with a mixed methods approach (Popay et al., 2006).

This work will be limited to a qualitative synthesis which carries the risk of researcher bias. In a transdisciplinary study there are three phases (Lawrence et al., 2022, p. 53);

1. problem identification utilizing systems knowledge,
2. problem analysis or focusing on the target of the study,
3. and the transformation of knowledge.

This study hopes to be the start of a circle of this type of knowledge focusing on creating the underpinnings of a larger project leading to transformation of established ways of working in Canadian film and television, with hopeful secondary effects in other arts industries.

Chapter 3 examines the literature, developing a narrative that will lead toward synthesis. It begins with an examination of Relevance Theory from the discipline of Pragmatic Linguistics moves toward an understanding of the discipline of anticipation, futures literacy, futures studies and anticipatory systems, before connecting to media theory, boundary object theory and rounding It off with a journey in systems thinking, viability and the temporal connections of systems.

Each chapter will include a personal reflection grounding the research in lived experience, uncovering potential sources of researcher bias and how it was mitigated against.

1.4 - Grounding the research: Art as a function of the future

“Nobody knows anything” – William Goldman (Debruge, 2018)

The Oscar winning screenwriter William Goldman famously said that and many of us in the film and television industry believe him to this day. Only if he was completely right, then statistically Hollywood wouldn’t work, yet we know the system is profitable (Pokorny & Sedgwick, 2010). I purposefully didn’t say the system works, as production volumes contract in Los Angeles fuelling unemployment and labour unrest over AI implementation (Lawrence Darmiento, 2025). As previously mentioned, the Canadian context is no better with viability concerns for those who create film and television, regardless of role. There might be an opportunity to make the humans in the system matter to the system itself. However, I had to accept that systems do not automatically and may not be able to centre workers and their audiences entirely in order to be open the possibilities that would transform my aims to biases. What might be possible is through systems thinking, we may be able to see previously impossible paths forward that causes us to unlearn previous system patterns.

Art has no value, or it may have all the value in the world as it resonates with individuals or groups. Art has been expressed for as long as humans have had culture and imagination acts as an anticipatory function that connects us to futures and the what ifs that do not exist today. This may seem obvious, but we don’t act as if it is, or we may encourage creativity systemically and foster the skills to translate those imaginings into action. We are trying but that gap exists and maybe this work can help on the path to foregrounding the worth of art to individuals and systems, even if we currently cannot measure the effects directly.

Chapter 2 – Methodology

The following chapter will outline the research design of this study, describing the unit of analysis, specifically the function or process of relevance in each theory, before describing narrative synthesis and the positionality of the researcher and the research itself. The purpose of this study is to see if relevance can be theoretically embedded into a system and if this is suggested, then further research could examine methods for implementation and transformation of systems in focus. The methodology is a layered as transdisciplinary research utilizing a descriptive narrative synthesis to understand how relevance fucntions between individuals and systems.

2.1 - Research design

This research adopts a transdisciplinary research design (Rigolot, 2020). Transdisciplinary research can be structured with a theoretical, practical, or "way of being" approach that incorporates knowledge "integration and implementation" (Rigolot, 2020, p. 4), that exceeds the academia. This is done in order to acknowledge that there is practical and useful insights that exist in everyday life. The purpose of utilizing a transdisciplinary frame is to create a sound theoretical synthesis across disciplines and experiences utilizing the widest array of sources possible to potentially lead to a practical output. This was done in order to mitigate against potential bias while illuminating the relationship between the different concepts addressing similar problems using different vocabularies. While the aim of this study is eventual practicality, the researcher acknowledges that transdisciplinary synthesis may or may not suggest further research toward those aims.

Due to the nature of different academic fields using similar, or different terms to describe subtly different phenomena, the methodological issue becomes one of translation between the terms. This requires a close read and understanding of the potential meaning and connection between the central concepts.

For example, while someone practicing cognitive science through the perspective of relevance theory may describe something as selective attention, a media theorist may call it figure and ground, where someone working on anticipatory systems may refer to the same thing as a modelling relation between your internal model and entailment. The research process is based around asking, are these analogies or do they represent structurally related processes?

To answer this question the unit of analysis for this study will be the function or process of each concept. What each theory or concept says about how relevance functions and what bridges can be built through multiple perspectives of that approach toward understanding how relevance functions will be the guiding principle for the data analysis.

2.2 - Literature sampling

The literature review was the main source of data collection. As each theory is well studied, to various degrees in and between fields, the literature review was conducted with the following procedure.

1. Read literature reviews on each of the following topics:
    a. Relevance Theory
        I. And the history of relevance as a concept and utilization in different academic disciplines
    b. Anticipatory Systems
        I. The Discipline of Anticipation
        II. Futures Literacy
        III. Futures Studies and Strategic Foresight
    c. Media Theory with particular attention to the evolution of McLuhan's work
    d. Boundary Object Theory
    e. Systems Thinking
        I. Systems approaches

II. Viable System Model

2. Examine foundational work on each theory
3. Research new extensions of the original work, how it developed, how, why and if the work was criticized
4. Understand current use cases if the concepts were found to have practical use cases
5. Examine if there were any interdisciplinary bridges made
6. If those bridges were made, where did they lead?

Particular attention was given to scholarship that connects media theory with systems, futures, organizations or design because each could illuminate further connections that reveal how each field functions with one another. Grey literature and other non-academic sources were considered based on their connection to the theories covered. For example, if a piece served to clarify, explain or illustrate relevance theory in action or refuted a claim then it was also included as data. It should be noted that the literature in each category is vast and this study mainly focused on theory, future work could expand understanding by layering application data and quantitative research outcomes in each domain.

2.3 – A narrative synthesis approach to bridge building

Narrative synthesis, is a research approach that integrates data into coherent findings by "telling the story of the evidence across studies" (Andrew, 2026, p. 11)

was selected because of the highly theoretical material which could prove challenging. This is flexible enough to allow the researcher to tell a plain language story with the theories examined for a pragmatic usable output.

It should be noted that the synthesis of all the data was aiming to examine functional relationships, understanding that all the theories examined are different. Conceptual similarity cannot be taken as sameness and therefore clustering was necessary to understand the higher themes that emerged.

For example, the figure-ground dynamic that McLuhan discusses in The Laws of Media (2017), is not the same as Wilson and Sperber's Relevance Theory (1987), but both concern how information is brought to an individual's attention in order to create further action. In this case the unit of analysis becomes the function described by the theory, not the individual texts or theories themselves. The aim is to uncover systemic relationships and their functions and whether these different perspectives together add new understanding to the functions they describe.

2.4 - Positionality statements

2.41 - Perspective of the research

This study takes the position of pragmatic constructivist, moving toward transformational knowledge (Creswell & Creswell, 2018, pp. 56–58). While the constructivist research perspective takes the position that humans construct meanings from social and historical perspectives, the pragmatic point of view does not take to "any one system of philosophy and reality" (Creswell & Creswell, 2018, p. 58). It is this researcher's position that the two views are not opposed to each other and align with this study. Taken together, pragmatic constructivism would entail not being stuck to one reality, but finding ways to understand the truth in each construction humanity creates. This put together may transform how we think of the material and utilize it to change the relationships and systems we have today.

The pragmatic constructivist approach accepts that while humans may construct our bounded realities, there may be a reality that exists independently from us and pragmatically research is meant to be used for the benefit of the world, regardless of if humans are at the center of those aims or not. I hope that considerations of functional approaches, not just relations, or outputs adds further depth and understanding to the potential transformations that the future holds.

2.42 - Perspective of the researcher

For the sake of full disclosure, I am a researcher and media professional who spent the better portion of 15 years running between film and television sets and control rooms. I got my start in live events, like theatre, music, opera and more, before I found my way to broadcast. I saw what happens to people when, to use the economic term, they are 'creatively destroyed' from an industry that doesn't allow people to compete. That was part of the initial inspiration of this problem space. It evolved from that case of the problem to a broader problem because I recognize that the theories and methods have to be solid before a potential implementation. Participation in research is not a given, so this project is a stepping stone to a broader inquiry.

I love 'yes and' ideas which need to hold multiple truths at the same time, regardless of the weight of any of the components. As a recovering positivist (by education) and constructivist (by culture), I recognize that there are issues in this world that straddle technically right and functionally correct. Sometimes we can be one or the other, sometimes we can be both or neither. In a world that is obsessed with baking results from a recipe, I also believe there is a time and place for that approach and there may be a time for cooking with theory to find generalized recipes that can be adjusted to tastes and needs.

Plainly, I have a bias for trying to be creative with ideas which in this case could skew the research toward assumptions around the desirability of more creative expression and participation. To mitigate against this tendency, I have selected sources that are both quantitative and qualitative, taking a pragmatic approach to the research where impact and use create boundaries around creative expression and specific coding themes.

2.5 – Grounding the research: What if everyone is seeing a different part of the same elephant?

The hunch built into the methodology is that a lot of people have similar issues, expressed in different ways. If we are all in the dark touching an elephant as the story goes, what if we

are in fact touching the same elephant? That would mean that we might not need new frameworks but instead to link them together in a way that yields the maximum results for each one. There is the possibility that each theory has not been utilized to its maximum potential for reasons of relevance that should become clear by the end of this paper.

Chapter 3: Uncovering functions: Theoretical foundations moving toward synthesis

As a reminder the unit of analysis of this research is the function a theory proposes, not just the theories or texts themselves. In order to understand those functions the theories will need to be explained and then expanded with applications or examples if possible.

3.1 - Relevance as a concept and Relevance Theory

Before I go into the technicalities of relevance theory, I want to go into further depth about relevance as a concept to set the frame of how it is defined and its impact.

It is worth noting that this research is examining relevance not irrelevance. They might be perceived as binary opposites, but I do not assume that and a full analysis of the function of irrelevance is outside of the scope of this work. Some implications on the relationship between relevance and irrelevance will allow for assumptions on the properties and function of irrelevance.

Relevance is well studied across many disciplines such as philosophy, linguistics, knowledge management and more. It has many incarnations but one of the most foundational pieces of work comes from Sperber and Wilson (1987), which establishes Relevance Theory, discussing how relevance interacts in language. This theory is central to other expressions of the understanding and use case of the concept of relevance.

3.1.1- A brief history of relevance

The word relevant can be traced back to 1560 with use cases in law, meaning, stick to the point (Schiller, 1912; Tamarkin, 2022). Relevance emerged in 1733 and interestingly when initially studied by Schiller at the start of the 20th century, the word was considered unique to the English language (Tamarkin, 2022).

Now it can be considered a noun that indicates “the degree to which something is related or useful to what is happening or being talked about” (Cambridge University Press and Assessment, 2026).

Where this becomes interesting from a functional perspective is that relevance as a concept filters ideas through perceived value in the moment. If we do not see something as relevant then it is more likely to be dismissed entirely, regardless of whether or not the piece of information is pertinent to the aims of the moment.

Tamarkin(2022) argues that relevance in the modern sense leans toward a pragmatism even when it runs up into the issue of the humanities that may bring about relevance through interest, emotion and “re-elevating” pieces of information, such as poems and art that help individuals resonate with their current moment. This ties into an understanding of attention, as it may or may not be conscious elevation of an idea, just potentially useful in the moment. They go on to argue that re-elevating showcases how interest comes before importance. What is elevated mentally creates a connection to value in the moment through an assumption of the information’s use in the moment.

Now use here does not mean solely physical, it could be for understanding or any other purpose including emotional satisfaction. What this means functionally is that value can start to behave differently moving humanity away from general truths to “enduring relevance,” (Tamarkin, 2022, p. 7).

The word continued to evolve in relation to value, as now memories, truths, facts, universals, experiences which are held up to attention could have value. “Anything has the potential to be relevant” (Tamarkin, 2022, p. 191), and this means that there are as many relevances(Mizzaro, 1998) as there are people. Relevances is the term this paper will use to respect the plurality of experience when it comes to relevance. In information retrieval, relevances refers to parameters of searchable items (Mizzaro, 1998).

One could argue that the dawn of the current manifestation of the attention economy as we understand it comes from this open idea of enduring relevance, where what is relevant today evolves and we must capture the attention of individuals with what is important for

individuals to orient themselves in an information rich world. This can be seen in the Hegellian example used by Tamarkin, which the daily practice of reading the newspaper allowed individuals to place themselves within the wider human context (Tamarkin, 2022, p. 334), much like the rituals of scrolling social media does today.

When examined at both the individual and systemic organizing level (via cultural objects like newspapers or social media), relevance acts as an orientation function, acting as a regulator of information which may or may not be conscious or directed.

3.1.2 - Relevance Theory

Moving toward a formal understanding of relevance, Relevance Theory created by Wilson and Sperber (1987), examines the concept from a linguistic perspective. They argue that while language does not communicate thought, communication is underpinned by communicators automatically turning toward the "presumption of optimal relevance" (Sperber & Wilson, 1987b, p. 704). This considers both audience and communicator in that,

1. The communicator is saying something that they deem relevant enough that the audience would also find the information worth their time.
2. The way in which this signal is communicated is the most relevant one that the speaker could have used.

At the individual level, relevance theory could be understood as the easier something is to understand or act upon in relation to the size of the cognitive effect. The greater the effect and the more economic it is to grasp, increases the level of relevance.

This translates to a relationship where relevance is generated as an internal calculation based on context and the relationship to potential outcomes. Relevance Theory is describing a potential anticipatory function where action is mediated by what could happen if the information is used.

In a current context, relevance theory has influenced the field of knowledge management through information retrieval (Saracevic, 2007, 2019). In data rich environment of the world today where we search the vast quantities of information on the internet (and elsewhere), the dynamics of that search are mediated by what creators of the system have determined are “manifestations of relevance” and their attributes (Cosijn & Ingwersen, 2000, pp. 537–538). It should be noted that the attributes of relance are considered to be relation (how closely related information is), intention (information accessor expectations and the intent behind the question), context (of the individual asking the question and what information is available to be retrieved) and interaction (the feedback or modification of the question). When taken together this showcases how relevance acts as a system of inferences that are mediated by information retrieval systems and the individuals who design them.

The issue then becomes, if relevance is individual and contextual, is not the act of mediation generating and controlling the function of relevance? This reinforces the relational and anticipatory aspect of relevance in action. At both the individual and organizational level, it could be understood that relevance acts as a filter of information prioritizing the greatest gains by the easiest means.

3.1.3 - Bias and the relationship with relevance

In the manifestation of relevance a selection filter, it stands to ask the question is there a relationship between bias and relevance, or are they part of a similar phenomenon?

When considering that leaders show a trend toward insensitivity toward relevant information and manipulating the relevance of information can alter the actions taken, the possibility of training individual sensitivity to information, meaning biases could be mitigated (Hsee et al., 2019). This work also exhibits a temporal aspect and relates to anticipation.

By examining an individual’s sensitivity toward relevance, people tend to act as if the actions that previously cost them a benefit will over rely on such information regardless of

relevance in the current moment, exhibiting the classic sunk-cost fallacy (Hsee et al., 2019). What this suggests is that regardless of the bias, relevance also acts as a filter. Though it has been suggested that relevance theory can assist with mapping cognitive biases for better training (Masotina et al., 2024), it has been also been noted that awareness of them does not mean they can be easily mitigated against (Lahn, 2014).

Making matters more difficult the understanding of the biases present in the patterns of language need to be understood. Cognitive biases are not universal which reinforces the need to understand and respect the plurality of relevance acting on mental processes (Busara Center, 2019). Additionally, patterns embedded in a language may or may not be universally applied as a result, though a recent study showcases a bias embedded universally across the patterns of language toward safety (Dodds et al., 2026). The statistical relationship of the findings might be far more accurate than previous frameworks, the work was conducted with the English language to represent essential meaning. Other languages may not follow that structure and structure acts to mediate not necessarily create individual or systemic relevance.

The function of relevance with bias again acts as a selection and filtering mechanism but what arises as relevant is also mediated with underlying structure, suggesting a recursive system may be in play.

3.1.4 – Relevance Theory and the Attention Economy

As discussed to in sections 3.1.1 and 3.1.2 there is a relationship between relevance and attention. When society shifted from a search for eternal truth toward a world where enduring relevance, we see the emergence of a new kind of attention economy (Tamarkin, 2022; Wu, 2017). In this economy value is generated by selling products to solve problems people may or may not have previously considered issues for a profit (Wu, 2017).

This places an incentive on mediation where the individuals who control the means of generating relevance continue to shift the agenda to economic growth through relevance.

When combined with a potential bias toward safety and predictable outcomes (as a potential expression of safety), then an interesting explanation of systemic behaviour becomes possible. We know that attention economy systems today are designed toward maximum engagement and addictive behaviours for profit (Hsu, 2017; Montgomery & Kerr, 2026). This could be seen as a way to make individuals more predictable through mediation to ensure the perceived safety of an organization for continued relevance expressed as ongoing profit. This showcases the function of relevance acts as a filter of attention again from another perspective and level of a system. In this case, influencing behaviour through modifying perceptions of relevance through the control of the foregrounding of information making relevance more likely for the benefit of organizations.

3.2- Anticipatory Systems

Relevance Theory suggests that potential outcomes are part of the calculation of what is elevated to our attention implying an anticipatory capacity is in play. If relevance addresses what signals receive attention then anticipation addresses how these signals are related to future states.

The work of theoretical biologist Robert Rosen is at the heart of anticipatory systems. For him, an "anticipatory system is a system containing a predictive model of itself and/or its environment, which allows it to change state at an instant in accord with the model's predictions pertaining to a later instant" (Rosen, 1985, p. 339). This aligns with Relevance Theory's notion of calculation of effect, but further nuances should be established of the differences.

3.2.1 - Modelling relation and entailment

From a biological perspective evolution can be considered conscious or unconscious "processes involving or resulting in foresight"(Nadin, 2010) that explains environmental

variety. Difference evolves because of anticipatory assumptions that change behaviour now.

Rosen took the time to mathematically prove anticipation and biology but for the purposes of this paper, that is out of scope. Instead, I will be focussing on the modelling relation that relates to relevance that explains what he proved.

It can be broken down into the following steps which have been interpreted by this author based on the descriptions of scholar Judith Rosen, who carries on Robert Rosen's work in anticipatory systems, (2022):

1. A natural system (or the universe) exists with all its possible relations (Rosen called this Entailment)
2. The natural system expresses some of what is entailed to us, and what is seen as a formal system
3. Individuals then test and interact with what was expressed by the natural system to arrive an inferred Entailment which is an expression of what happened and may happen again. When this is done people create mental models that help us anticipate what may happen in the natural system we exist in.
4. Which is the process where we decode the natural system, beginning at the start of the feedback loop again.

This is important because it is how we all function to know our world. Conscious understanding of this relationship may allow us to better understand the relationships that underpin existence at different levels of emergence and understand Entailment. For example, we know atoms exist, but atoms are not cells or organisms, which emerge to stay viable through identity at a higher level of organization. Put another way, nature produces colimits (Tuomi, 2019) where entities lose their unique properties if they are cut in half, but we do not know when those points will happen before they do.

In short, anticipation functions with relevance to foreground the future possibilities in the current moment. This will become more important as we examine media theory and boundary objects in further sections.

3.3 - Futures Literacy (FL) and the Discipline of Anticipation (DoA)

The discipline of anticipation could be described as a conscious way to use the future through understanding and mobilizing the possibilities of the world later than now (Miller et al., 2013). This capacity can be built to move away from prediction to possibility (Miller, 2018b), in order to see new potential futures. Futures in this sense being multiple paths that could be utilized to understand and build anticipatory assumptions. This is anticipatory capacity can be described as futures literacy (FL), the ability to utilize the future.

While traditional forecasting focuses on determining what is the most likely future, futures literacy asks what assumptions do we have about the future and how are they shaping and what we can perceive and do now?

The function of the future sounds similar to how relevance acts as a filter, FL differs by being a conscious filter as opposed to relevance's unconscious potential and unconscious potential influence.

3.3.1 - Ontological Expansion and Functional Shift

This conscious use of the future is important because the universe is creative, in the sense that it is always changing and increasing in complexity through acting on possibilities. Ilkka Tuomi notes that there are three key principles to that increase of complexity, "continuous creation, functional shift and relational ontology" (Tuomi, 2019, p. 40) that add up to ontological expansion with their dynamics.

Tuomi continues by describing each principle summarized as,

1. Continuous creation can be described as the process of innovation which creates something that did not exist before(Tuomi, 2019, p. 41).
2. The idea of a functional shift stated with Darwin through an understanding of evolution, where biological functions change through emergence. An example such

as wings shifting from being something that could have cooled body temperature to develop a new function such as flight showcases this (Tuomi, 2019, p. 44).

3. Relational ontology as proposed by Bergson in Tuomi's work, highlights how the capabilities of perception are tightly coupled with the capabilities of action (Tuomi, 2019) . This can be understood as a "view here living beings generate their realities in an interaction with the world" (Tuomi, 2019, p. 47), where cognition and perception are both oriented toward action.

Ontological expansion describes how a variety of futures could happen. If we pay attention to the capabilities and possibilities in the functions that exist and how they could evolve that we may better uncover the potential pathways available in the present. Ontological expansion functions as a way to constantly adapt to changing conditions in line with those conditions.

It should be noted that attention needs to be paid to whether a function and/or an object changed. Both produce new relationships, but a function change can be more drastic. For example, a function may remain stable even if the expression changes, like a letter or a telephone. They could be understood as ways of communicating but the expression allowed by the different manifestations of the function shifts behaviour and changes the nature of communication itself. The telephone allows for more information (context via voice) than a letter or a telegram to come through its medium, with the added benefits of additional speed and society organizes actions around the functional abilities accordingly.

3.3.2 - Anticipatory Assumptions

As previously mentioned, anticipatory assumptions are what futures literacy aims to uncover with participants to uncover the processes and potential uses of the future. This becomes particularly powerful in the context of organizations.

When considering the principles to build a culture of organizational foresight, an international team of futures experts reflected on an 18 month section of an ongoing

United Nations Environment Programme called Foresight Trajectory (Jabbour et al., 2025). Through the study was aimed at building principles to enhance foresight readiness, it is illuminating for the relationship between assumptions, futures and relevance.

They looked for impacts of context, what drives perceived relevance in interest holders, and modes of anticipation (Jabbour et al., 2025). Part of what their work revealed is that the futures literacy framework (Miller, 2018a) was helpful in uncovering perceived individual relevances. What is of particular note for this study is the nature of their reflection that drew attention to how "growing a foresight culture is situated in changing nested, overlapping contest, supported by foresight's perceived relevance, and composed of various forms of anticipation"(Jabbour et al., 2025, p. 10). This implies that there is a systemic recursive function that enables relevance through futures literacy work, with the anticipatory exploration acting as a bridge between the present perceptions of relevance in relation to their organizational context.

3.4 - Media Studies

Media studies is a vast discipline that examines many intersections of the humanities. From understanding how digital humanities intersect with media studies to transmedia and the acts of transmediation that exist today, media play a role in all our lives (Freeman & Gambarato, 2018; Peña & James, 2024). Transmedia can be understood as the "transference of content between different forms of it," regardless of the nature of the media, expressed in a sensory, semiotic, and/or signal based way (Peña & James, 2024). What will be demonstrated in the following sections (3.4.1-3.4.4.) is that media create functional environments that can alter and reveal the nature of relevance.

3.4.1 - Why study the media?

Much of the world we interact with could be considered transmedia, as something that was once analogue or organic is translated into a digital representation for consumption or vice

versa. Part of what media studies intends to do is to understand what is lost and gained in the process and that is called mediation.

Media themselves are not neutral; they can be controlled or embedded with foregrounding mechanisms to consolidate or distribute power as was discussed in the previous example of addictive technological patterns. This study will be examining mediation further because new kinds of media can create space that have “profound implications for the exercise of power as well as opportunities for public participation in political life” (Silverstone, 1999, p. 144). Culture is now impacting human evolution faster than evolution through biology, so if we want to understand relevance in the future and how we relate to it (Waring & Wood, 2025) . It stands that we must integrate an understanding of mediation as a function that impacts how we will continue to change into studies of the future. The meaning and responsibility of futures evolves to move beyond dystopias and abstract value to allow us to live in “a deeper, richer, and unbounded present” (Slaughter, 2020, p. 37).

3.4.2 – Revisiting McLuhan

Marshall McLuhan’s ideas have been in print for over 50 years, and they are still used to analyze the effects of new and emerging communications to this day (Euchner, 2021; M. McLuhan, 1964; Vlasov, 2025). His famous quote of “the medium is the message” is an important concept but lacks practical utility on its own (M. McLuhan, 1964). What is important for this study is his definition of media and how he understood media to function. For McLuhan, media is any extension of humanity, that expands or amplifies the senses we have (M. McLuhan, 1964). These extensions can modify how we understand systemic attention both at the individual and societal scale (M. McLuhan, 2017). The definition of media is purposefully broad, is abundantly useful to create a view of media as spaces that are open for analysis through the effects they have on the world. For that analytical method, we turn to the laws of media and the ideas of figure and ground.

3.4.3 - The Tetrad

In the Laws of Media, McLuhan outlines the how media works though the dynamics of the tetrad (M. McLuhan, 1988). Central to the tetrad are the four functions that media have when interacted with and where each fit into their relationship with the figure and ground. The spaces which media create are dynamic and relational, they "exert pressure on each other" moving from figure or the area of attention to ground, or the area of inattention (McLuhan, 1988, p. 11-12). It follows that what is contained in the space of inattention is much larger than what is our attention. Ground is an important space in relation to relevance because if we are not attentive to a piece of information or a possibility does not mean it is irrelevant, it may just mean it is not foregrounded into the space of figure by a medium. We should not confuse visibility of what we see in the figures of the past, present or anticipated futures as anything complete. If it were then we would not be disproving previously held scientific ideas and updating beliefs.

There is another relationship between the nature of media and the nature of relevance that aids our understanding of function. Media could be thought of as recursive. McLuhan noted that media contain, are expressed by and are possibly contained by other media. This can be expressed as the "content of writing is speech," and one might go further to say the content of speech is thought (McLuhan, 1964, pp. 23). This is important because as he observed the different media change the "scale, pace or pattern" (M. McLuhan, 1964, p. 24) of human behaviours. Here we see parallels to relevance again as media repeat recursive relationality.

The McLuhans go on to further describe the interplay of figure and ground with the tetrad. Going deeper into figure and ground, as has been stated, figure is what we pay attention to and ground is what is in the background. McLuhan wrote about the work of Harold Innis to demonstrate that figure/ground interface with each other and do not necessarily have meaning without each other (M. McLuhan, 1988, p. 105) so both figure and ground must be examined to create understanding. In other words, figure gains meaning from its relationship to the background and vice versa, though hidden grounds exist. The concept of

hidden grounds works well with anticipatory systems and relevance, as what is hidden exists outside of our preferred mental models of "thought and exploration"(M. McLuhan, 1988, p. 110) which become seen as normal.

The tetrad is a series of four questions that are to be asked to reveal the dynamic nature of a medium under analysis and its potential "properties and actions exerted upon" all who engage with it (M. McLuhan, 1988, p. 98), as well as it's what could be seen the figure/ground relationship in the medium. This could, in theory, also serve to showcase the figure/ground relationships that individuals carry with their own preferences for certain ways of thinking. That stated, for clarity, I will refer to the original formulations of the questions as I believe the more modern and simplified versions may miss the nuances contained in them. They are all found in McLuhan (1988) on pages 98-99 for additional context.

1. Enhancement - "What does the artefact enhance or intensify or make possible or accelerate?"
2. Obsolesces - "If some aspect of a situation is enlarged or enhanced, simultaneously the old condition or unenhanced situation is displaced thereby. What is pushed aside or obsolesced by the new 'organ'?" In this case the organ is considered to be the extension created through a new medium.
3. Retrieval - "What recurrence or retrieval of earlier actions and services is brought into play simultaneously by the new form? What older, previously obsolesced ground is brought back and inheres in the new form?"
4. Reversal -"When pushed to the limits of its potential (another complimentary action), the new form will tend to reverse what had been its original characteristics. What is the reversal potential of the new form?"

These questions interact with figure and ground by illuminating which function supports inquiry into both areas. Questions one and three, enhancement and retrieval live in the realm of figure while two and four, obsolesces and reversal, interact with ground (Takkeci & Erdem, 2024). This is important because it makes the tetrad a tool that actively

acknowledges the relevance of the function of ground. This links nicely with the idea of entailment in Rosen's anticipatory systems model because they both deal with the large area of potentially unknowable reality as expanded with Tuomi's ontological expansion.

What the tetrad enables us to understand is that function changes but patterns emerge regardless of novelty and they may or may not have a historical precedent. Meaning, relevance as a function not only is multifaceted with relevances and recursive, but that relevance can be amplified and attenuated through the media that they pass through.

The temporal component of the tetrad is interesting from a futures literacy perspective because of the analysis of function shift through relational media over time makes us aware of new aspects to anticipate when we consider using the future. How does the future use us individually and as organizations?

3.4.4 - Permeable media

When questions such as does society function well are asked, additional questions need to follow. Functioning well for who and in what way? These questions are examples of getting at relevance but they do not assume participation is a given. I also do not want to assume participation, the desire of individuals or organizations to participate or the ability to participate is a given.

In systems thinking, a field that will be covered in more detail later in this chapter, the ideas of open and closed systems are introduced but there are spaces in between open and closed are also recognized as relational (Niño Caceres et al., 2026). For example, humans are biologically permeable through our skin that absorbs compounds (like water when you swim and your fingers get wrinkly).

Media also acknowledges this permeability of participation with media themselves (Langill & Daniels, 2024). McLuhan also went down the pathway of acknowledging levels of participation in media through defining hot and cold media. Hot media is described as "low

in participation" by extending a sense in "high definition" versus cold media that is high in participation, where we have to fill in the blanks (M. McLuhan, 1964, p. 34).

What this means is that it is not enough to know what is in figure, or in ground, we must also know how media enable or disable agency and participation, adding another recursive element. As agency and participation are experienced differently and in time, meaning that they change temporally and are not static, this creates a need for acknowledging that perhaps what individuals and organizations find relevant must be translated into a world that does not see them. Again, just because something is not in attention and living in ground, does not mean it is not relevant.

Permeability means that multiple meanings exist and can enter a system. The media become part of the anticipatory system that is recursive, and relevance acts as a selection tool. At the organizational level all of these relevances need regulation so that they do not become noise and translation so that they can be recognized by the methods that might otherwise exclude.

This idea compliments work in futures literacy by acknowledging that relevance can be gained or lost based on the understanding that some futures are "impossible" for those who are oppressed by the systems that exist and the paths that retain aspects of those futures (Udoewa, 2026). Udoewa's work on impossible futures through Black Liberation Futures Design offers a way to understand temporality, race and structural oppression beyond embedded assumptions about hope and agency that exist in current methodologies (Udoewa, 2026). This signals to me that building and acknowledging relevance in potential future structures may go a long way to building bridges between relevances, respecting the possibilities of the future do not have to repeat the problems of today.

Whatever methods we create for futures or systems needs to take into account that relevance is temporal and therefore creative in the ontological expansion sense, so the methods need to account for creativity, boundaries and translation between relevances.

3.5 - Boundary Object Theory, the interplay between Social Worlds and Standardization

The idea of relevances acknowledges that there are as many worlds as there are people, at least when it comes to relevance. The ontological and epistemological debate that such a statement has without the anchor of relevance as a function is beyond the scope of this paper. Though it does raise the question, relevance as a function from based on what perspective?

This is where recursiveness again comes into play. From the perspective of a system, the function may be not conscious and therefore the system purpose is what is relevant, while with another level of a system a human might be the perspective that defines relevance. What this means is that we need translation between the recursive levels of relevance to build understanding. For that I turn to boundary object theory, which originated in the field of social studies for science (Star & Griesemer, 1989).

First introduced by Leigh Star and James Griesemer in their examination of why the creation of Berkeley's Museum of Vertebrate Zoology (MVZ) at the turn of the 20th century worked (Star & Griesemer, 1989). They acknowledge that scientific work requires people from diverse backgrounds with different, sometimes competing, motivations to all work together to create work that "retains its integrity across time, space and local contingencies" (Star & Griesemer, 1989, p. 387), and across the disciplines that are utilizing the source work, in complex institutional settings.

The concept has shown durability and is still in use today to explain objects that translate between diverse perspectives to act as translation devices for boundary experiences that enable codesign (Niño Caceres et al., 2026). What I wanted to question is whether boundary objects function well on their own or do they need support functions to be effective in translation? The implication for relevance as an organizational function is that it may or may not be enough to translate findings from part of the system to another in order for information to be seen as relevant.

3.5.1 – Organizational enablement

In the original museum case study, Star and Griesemer went about trying to understand how to reconcile different points of view in order to get people together to act toward an outcome. They acknowledged that "consensus is not necessary for cooperation nor for the successful conduct of work" (Star & Griesemer, 1989, p. 388) between different people, which they regarded as social worlds giving respect to the different aims and stances of those individuals. Their work elaborates further by outlining how while there is no need for a full alliance (or consensus) between people in an organization, there is a need to translate the efforts from different social worlds to allow for coexistence, coherence and cooperation (Star & Griesemer, 1989). In relevance terms, there needs to be a way to translate between the different set of relevances, of which there could be an indeterminate amount, with something that can connect with each individual.

While this might seem like a medium the distinction is in the focus of translation. Media translate between forms, they can translate understanding between people but they do not have to. A boundary object has the focus on translating relevance between social worlds. Boundary objects can be an abstraction, like a concept, they do not need to be a literal object, What this means in practice is that each boundary object must be permeable with the ability to "inhabit several intersecting social worlds and satisfy the informational requirements of each of them" (Star & Griesemer, 1989, p. 393). The point is that they can maintain a commonality between the different interpretations of what they are, in order to enable a shared use.

3.5.2 – Standardization

The emphasis on flexible commonality means that some standardization emerges. In the case of the MVZ, the first museum director Joseph Grinnel, a biologist created a standard method of collecting and documenting specimens for scientific use (Star & Griesemer, 1989). That method balanced the autonomy of the trappers and other individuals who collected the animals with the needs of the scientists across different natural science

disciplines so regardless of what was being studied (or whether scientists agreed on findings or theories), they could all utilize the same data set then and into the future. What this enabled was the ability for everyone to coordinate as they needed, according to individual relevance with boundary objects that could be moulded to meet their individual purposes.

In light of all that has been covered so far the focus on adding a stabilizing effect while maintaining permeability means that relevances can be bridged and supported systemically. This allows relevance theory to hold at an organizational level as well, the easiest way to understand something with the maximum benefit will increase relevance for individuals. Translated to the organizational level, a boundary object that is permeable translates relevance between individuals and the organizational point of view, toward the maximum benefit of all involved between the levels of the system.

This brings us to the final area of inquiry with an investigation of a word that has been taken for granted so far, system. What is a system? How do systems function and interface with what we have seen of relevance as a function?

3.6 - Systems Thinking

My favourite example of how to define a system is always said by a colleague of me to likes to quote the film The Matrix (Wachowski & Wachowski, 1999) “there is no spoon.” In a scene where a young person is trying to bend a spoon with their mind, the point made is that the spoon is a construct of the mind so there is no need to bend what physically does not exist, only to bend the imagination to change the condition of the spoon. What that means is that systems do not exist, they are better defined as systems in focus, as in, we create the boundaries of systems to make them intelligible to us if they are abstract.

Before we go down that journey of what a system is, lets first acknowledge that we are in a “mess” in the sense that systems science pioneer Russel Ackoff (1974) defined. In short, a

mess is a problem with a high degree of uncertainty and is different than something difficult that is complicated but with a set number of determined variables acting predictably.

Systems thinking has many branches of thought with one main similarity, “promoting holistic views – particularly emphasising the integral relationship between human and non-human nature”(Reynolds & Holwell, 2020, p. 9), to solve issues that otherwise cannot be solved through reductionist views. Each line of thinking can be traced back to assumptions of whether or not systems are “hard,” based on machine metaphors and knowable outcomes, “soft” systems based on biologic metaphors or “critical” systems where systems need to be coerced into specific actions (Reynolds & Holwell, 2020, p. 12). Each of the methods that come out of these traditions can be treated as media embedding perspective and relevance in them depending on what systems they are focusing on.

Systems themselves can come in many forms and can be differentiated between real systems and conceptual systems that each have their own subtypes (Sillitto et al., 2017). Real systems are naturally occurring and whose boundaries can be shared empirically with a general community, while conceptual systems convey meaning that is not contained in the individual parts that compose the system in focus (Sillitto et al., 2017, p. 12). A simple way to think about it is real systems area more deterministic, think engineering or biology, they can be measured. Conceptual systems are abstractions like math or music, shared models that are information based with an entity that processes that information.

All of the system types and subsystems carry patterns that are useful for understanding particular issues. As opposed to giving you a full review of the nearly a century of systems thinking as a field, (though I really enjoyed doing that as a side quest to support this work, and highly recommend you do that if you are interested, look at the works cited for great starting points, honestly start with any work by Meadows, Senge, Metcalf or Ing), I found it helpful to place boundaries on systems explored in depth based on the shared characteristics with has been observed about relevance so far. Placing relevance through the lens of Relevance Theory in the world of conceptual systems, so far we have showcased the following characteristics:

- Relevance Theory starts with a simple set of rules that impacts perceived relevance of individuals and regulates awareness.
- As a result, relevance is upstream of anticipation, therefore individual relevance impacts what is anticipated.
- The rules of relevance theory can be impacted through the media that individuals encounter, either foregrounding or backgrounding information.
- Relevance scales from an individual calculation to a group function through shared purpose, regulating group and individual awareness.
- Relevance for groups can be understood as being revealed and negotiated through boundary objects.
- Relevance is recursive because those boundary objects act as media for individuals starting the process again.
- Relevance is relational and therefore has some element of feedback between signal and observer.

In order to continue the inquiry into relevance in systems thinking, some clarity of language is required. Up until this point, I have been pointing out relevance as a function, which in the language of systems thinking, a function is a word used for nonhuman systems and how they behave (Meadows, 2009, pp. 14–15). By comparison in a human system behaviour is understood as purpose. I did not want an emphasis on relevance as the purpose of individuals, linking to actions or assumed outcomes as the focus of the paper is on function as relevance behaves a certain way as established by Relevance Theory.

3.6.1 – Structure, function and process

One of the benefits of systems thinking approaches is that a wholistic view can allow us to see patterns of behaviours over time identifying what feedback loops systems have that we may have otherwise missed because we cannot see the system for what it is, because we exist in systems and are systems (Meadows, 2009, p. 25). How we can practically engage with this is through models of systems that reveal structure, function and process,

between parts and wholes contained in systems (Ing, 2013). When thinking in systems Ing continues, structure, function and process can be thought of the building blocks of relations in systems. Structure is revealed through relationships and their components, function in this case relates to effect and result and process is the sequence of activities that led to the result (Ing, 2013, p. 528).

When those elements are identified systems thinkers create models to understand how to interact with the system for beneficial changes. The issue with some systems traditions is that the models are static in a dynamic world. They cannot predict emergence, when innovative expansion happens creating new wholes that have new traits that their parts alone do not have. Structure changes, even if we do not notice it, function as we have discussed can shift and processes learn and coevolve over time (Ing, 2013). Systems themselves parts or wholes that speed up or slow down relationally to each other based on the change in any or all of those three attributes, meaning systems are always temporal and relational. We create many different types of models to understand systems and the dynamic behaviour that influences them. From computerized behavioural models, digital twins and co-designed versions, they are useful for a static visualization of what could be happening as we understand it (P. Jones & Bowes, 2018; P. H. Jones, 2022; Snowden, 2026). I use 'could' deliberately as there will always be variables that are missing, but the point is that the key ones are identified and understood, hence why it is so important to understand how relevance works in the first place as systems thinking underpins strategic foresight and anticipatory work (Hichert & Schultz, 2024). If we are to anticipate the future using frameworks that embed perspectives, then it stands that such a method should be treated as a boundary object, creating standardization and flexibility.

3.6.2 – Variety – Ashby's Law

As relevance acts as a regulator of information, there is an important systems thinking topic that needs to be mentioned as it connects to the behaviour Relevance Theory, media and boundary objects all show, the cybernetic concept of variety.

Cybernetics is a school of systems thinking that came from a hard systems approach, with a desire to steer or pilot a system (Reynolds & Holwell, 2020). It has evolved from its roots to also recognized the place of the observer in the system and is now more relational in line with modern systems thinking (Cabrera et al., 2023). What remains across time though is the idea of managing variety.

W. Ross Ashby, introduced the term variety to describe the number of possible states a system could have, while his law illuminates us to the relational component of variety, "Only variety can absorb variety, " as cited in Brain of the Firm by Stafford Beer (1981, p. 263). Think of a lock that can be open or closed, or two states of variety. In order to effectively manage those states there needs to be a larger variety of options than those two. In this case, there is four possible management points, inside (open or closed), or outside (open or closed). That pattern repeats in technical systems and the Viable System Model(VSM) was created to better interact with variety, for the purpose of creating or maintaining viability for the benefit of society (Beer, 1974). In relation to relevance, variety could be seen as the number of variables that could be re-elevated to the media territory of figure to interact with. In plain language, variety quantifies the possibilities or states that something has, that could come into our attention from the environment or system we are in.

3.6.3 – The Viable System Model (VSM)

Stafford Beer created the Viable System Model over many years as a management system to better interact with the world (Beer, 1966, 1975, 1981, 1985, 1994a, 1994b, 2002). Beer was greatly concerned with the state of the world and what he saw as economic cycles of harm that could be better managed through cybernetic principles (Beer, 1974). This he believed would allow societies to be more free, with individuals gaining more autonomy, living with governance that managed variety, not necessarily markets or bureaucracy.

According to Beer, a viable system is “something organic, which intends to survive” (Beer, 1981, p. 66), and he was of the opinion that the then state of the world would lead to a slow collapse for humanity. He created the VSM with the “Intended use as a diagnostic tool”(Beer, 1981, p. 132) for systems to understand whether or not they had all the parts that he identified are necessary for viability. VSM’s purpose is to illustrate how a system actually works through the identification of systems and their relations. For the purposes of this paper, it was selected because the model integrates the principles of environmental amplifying (increasing) and, attenuating (muting or lessening) the amount of information being managed by systems to reduce overwhelm or creating a shock to the system creating a bridge to relevance. Additionally, the VSM also takes a clear stance on recursiveness, where systems can be viable within systems and that allows individuals to diagnose issues that different levels that could affect other recursive levels that might otherwise be hidden, much like how boundary objects can reveal what is relevant between individuals and groups. Now that viability has been defined, let’s examine each of the systems that make up the VSM to see if there are further insights in relation to relevance. Note, if VSM were to be used as a framework, the emphasis on viability, even if we were to discover new interpretations of what that means and necessary systems could act as a way to standardize a minimum outcome of futures literacy or systems thinking work.

3.6.3.1 – Breaking down the systems and communication channels in VSM

The viable systems model (VSM) typically uses diagrams that can sometimes be overwhelming and look like electrical engineering diagrams. I highly recommend looking at them and see if you can diagnose a system sometime.

The VSM has five systems that add up to viability. Each of them is recursive, meaning each of them has the five systems within them and each level is contained by another recursive level. Picture a bunch of nested dolls or cups that stack. VSM might come from managerial cybernetics which can cause people to think hierarchy, but the purpose of the model was to diagnose systemic issues that prohibit viability and if viability is achieved, it should

improve functioning within the system. I should mention that the VSM has been empirically tested and proven to improve functioning of organizations and systems (Schwaninger & Scheef, 2016).

The following VSM systems do not add up to an organization chart and a single person could be a system that contains all of the systems but bounces back and forth between different systems in an group context. The VSM separates a viable system into the following (Beer, 1975; Espinosa et al., 2023; Leonard, 2009; Leonard et al., 2021):

System 1 - Operations: the function that has direct relationships with the environment "here and now."

System 2 - Coordination: ensures multiple system 1's do not get in each other's way, reducing oscillation (boom bust cycles of behaviour).

System 3 - Synergy: Acts to balance the needs and priorities of the organization and systems by engaging in resource bargaining.

System 3 *Star – Compliance: Special circumstances require an audit or monitoring, so this is performed by an extension of system 3.

System 4 – Anticipation: Engaging with the environment, system 4 anticipates the future and notifies systems 3 and 5 with the information needed to adjust to future needs.

System 5 - Identity: The purpose of system 5 is to maintain and embody coherence and identity for the rest of the system.

As mentioned previously, every level of an organization would need to have a set of systems 1-5 represented in them recursively, from operations onward. These systems each have their own purposes and that acts as a relevance filter. It should be noted that this view is the static way of interacting with the VSM. There is a dynamic way that focuses on balancing and working directly with variety (Frahm, 2024), this will be briefly covered below.

First let's note how each system communicates. There are six information channels built into the VSM, they are as follows.

Channel 1: Intervention and regulation – the line of communication that passes through all the systems communicating internal policies.

Channel 2: Allocation of resources – from System 3 to System 1 and System 1 local management (because each System 1 is recursive and has all 5 systems contained within it)

Channel 3: Operational interrelationships – Communication between multiple system 1's that need to coordinate and share information.

Channel 4: Interrelationships of the environment – by Systems 1 and 4 for different purposes. System 1 operates close to the environment which gives feedback on what it produces. System 4 looks to possible futures to determine future needs.

Channel 5: Coordination – by System 2 to arrange Systems 1 and 3.

Channel 6: Monitoring – by System 3 on System 1.

These channels are interesting because they outline how communication should operate, which lends the VSM part of its diagnostic ability. Notably though the model is flexible enough to leave the media of communication open for interpretation and context. This means the VSM is compatible with boundary object theory and the recursive relevance mediation previously discussed.

The dynamic version of the VSM contextualizes where in the variety can be balanced to avoid shocks to any of the systems. This is accomplished through a series of questions similar to the tetrad, and instead of going through them in detail, they can be understood as conceptual boundary objects that work to bring attention to issues from the perspective of the systems themselves(Frahm, 2024). What is interesting about this is that a non-human system is then given agency and its point of view by the observers through our perspective shifting capabilities. Perspective shifting in this case is the ability to connect with other perspectives to understand how they may react in that situation (Fletcher, 2020). What this means for this study is that relevances then can incorporate non-human perspectives if given the right boundary object to do so.

3.6.3.2 - Panarchy and the adaptive cycle

It should be noted that the Viable System Model is not the only recursive systems thinking methodology. Panarachy and the Adaptive Cycle, as developed by Gunderson and Holling, with ongoing work from other scholars (Allen et al., 2014) is also recursive taking an ecological point of view. It is a temporal model that places systems in context of where they in space and time in relation to the energy and speed of the system in question. The adaptive cycle has four states, reorganization, growth, release and conservation all corresponding to different system speeds and resilience.

As it looks at ecological scale, I consider VSM to nest into the Adaptive Cycle potentially revealing more information on larger time scales, though future research would need to better understand how the two models could interact.

3.7 - Grounding the research: Save the Cat – the cat is the boundary object that makes you able to care

If you have never read a book on screenwriting (or writing in general) you may just enjoy seeing how much thought, skill and structure goes into getting people other people to feel things. Plus they are usually very entertaining. Two of my favourites are classics, Save the Cat (Snyder, 2005) and Elephant Bucks (Bull, 2007). They both have lessons related to relevance and everything this chapter has discussed. A film is a medium that is designed to operate in the figure environment, grabbing your attention but how does it do that? There are many tools but one of the best known is through the creation of a moment where a protagonist saves a cat, whether literally or figuratively. The audience then connects with the protagonist as a potentially good person who we want to spend our time with. The cat is a permeable idea that acts as a boundary object, giving stability and grounding to the characters we are about to spend time with. This works recursively as the cat is designed to connect at an individual level but be an open enough figure so that many people can relate to it, creating a relationship that is reinforced on those levels.

Sheldon Bull (2007) on the other hand, likes to say that when you are writing and if there is an issue with your story at any time, whether at the beginning, middle or end, then the solution to your problem already exists in the realities of the world you have created. All you have to do is understand the dynamics, the structure and the relationships of what already exists and find the right level of exaggeration to allow people to see it.

I see a comparable to futures literacy and systems work here in relation to relevance. Stories have recognizable plot structures that allow for experimentation, much like systems models such as the VSM. If the future as a concept is treated as a medium, as relevance can be, then it can either be a boundary object or in need of one to translate its effects. We see this in speculative futures and systemic design (Haldenby, 2014; P. H. Jones, 2022). However, the power of film comes from working at multiple levels at the same time. What if we took systems thinking as the media that expressed the future knowing that the solutions already existed in the structure?

Chapter 4 – Synthesis and Discussion

Narrative synthesis allowed me the creativity to explore a wide array of fields and the technique illuminated some elements of relevance as a function and process. What was uncovered along the path of understanding relevance from Relevance Theory to Futures Literacy and beyond is the following.

Relevance can be thought to have the following behaviours:

- relational with both human and non-human entities in systems starting with a simple set of rules such as Relevance Theory,
- impacted through media that individuals encounter, either foregrounding or backgrounding information as the dynamics are embedded in the medium,
- mediated upstream of anticipatory assumptions but relevance is impacted by anticipated outcomes
- recursive though the mediation relationships change as it scales
- subject to functional shift and ontological expansion
- revealed through boundary objects that are separate from media with their own properties, including the need to provide stability to a system
- acts as a selection filter that may or may not include all relevant information for purpose
- upstream of bias, informing how importance is created and anticipated and
- with a need to acknowledge at all levels of a system, the relevances that exist and how they can interact but do not need to agree for function or viability.

These factors could go into a methodology that would diagnose systemic functioning and potential trajectories based on relevance function with changes in mediation. In essence, within futures literacy, these findings add more places of inquiry that could act as boundary objects. How does the future use us and what does viability mean for different futures? Can we identify the relevances in the room and do participants find participation relevant? If not can we diagnose where in the system is not viable for them?

These questions become more interesting in the intersection of systems thinking and futures literacy as it is now clearer that studying systemic entities, their relationships, and functions/purposes is not enough if all of those elements are mediated. Examining the additional effects of mediation may uncover how relevances function across people and paradigms. This would allow us to design more appropriate media and boundary objects, while maintaining the stability offered by viability.

4.1 - Returning to the research questions

This study utilized descriptive narrative synthesis throughout chapter 3 to suggest bridges across disciplines. This approach compared meanings in the texts and common themes emerged that culminated into the insights of relevance behaviour listed in 4.0. With the process of relevance being a recursive feedback loop that interacts with anticipation as a filter and evolves to be a boundary object in organizations that interacts with individuals and the purpose of organizations, there is an opportunity to create structured methodology that maps these interactions for diagnosis and implementation of viability in systems. We know that the Viable System Model (VSM) has been tested and empirically improves functioning of organizations (Schwaninger & Scheef, 2016), this study helps to bridge the gap of utilizing the VSM with images of the future to uncover relevances for viable futures.

4.1.1 – Primary Research Question

RQ: If uncertainty is a part of reality how might relevance be consciously embedded increasing organizational viability in perceiving, translating, and acting upon signals?

The synthesis suggests that yes in theory relevance can be embedded through recursive mechanisms that foreground, translate, anticipate, regulate and add stability to the potential relevances contained in systems.

4.1.2 - Secondary Research Question 1

SRQ1: How does relevance function at an individual level and how does that evolve with individuals in the context of organizations?

At an individual level, Relevance Theory explains the cognitive function relevance plays. At an organizational level the recursive behaviour of mediated information through boundary objects to interact with individuals and the entire group suggests that relevance acts as a medium itself and can be analyzed with that frame through tools like the tetrad.

4.1.3 - Secondary Research Question 2

SRQ2: How do recursive levels of systems communicate with each other? What is lost or gained in that conversation?

The VSM provides us with one answer through its communication channels, but this research adds that those channels also speak to each other through media. The quality of the information that travels between levels of a system and between systems becomes a question of visibility and the quality of the medium. Analysis is possible and may ensure coordination and meaning are not lost.

4.1.4 - Secondary Research Question 3

SRQ3: Lastly, how might anticipation and relevance add to the regulation of signals within a viable system?

Relevance can be considered a filtering point for anticipatory assumptions and processes that forms a feedback loop with what we understand might happen later than now. This loop regulates what we are able to see as individuals and can be regulated through media that foregrounds information. That information is translated, regulated if need be and possibly acted upon which changes the environment beginning the cycle again.

This becomes a process where we can understand how anticipatory variety, or relevances in the room can become regulatory variety within a viable system leading to potentially new understanding of what viability means across worldviews.

4.2 - Limitations of the Study

The largest limitation of this work is that it was done as a single researcher, therefore relevance was interpreted one way. A diverse team incorporating Indigenous knowledges and international participants representing different paradigms would have added to the thickness of the findings.

Language can be considered a limitation of the research as only English language sources were examined. International work was studied but as relevance primarily an English word, I wonder how a larger, multi-lingual and multi-paradigm team would understand this work and add further depth toward relevances and viability considerations in relation to the future.

Scope was also a limitation as the four domains is well studied, there is still plenty of literature that needs to be reviewed for relevance patterns. Lastly, some of the research begins to get into formal quantitative models. While I taught myself a couple of mathematical theories that work with causation, I am not a practitioner of any. In addition to a larger team, a mixed methods protocol that took into account more knowledge management principles may have added further depth to the findings.

4.3 - Grounding the research

The irony of producing a piece of work on relevance that might not be relevant is not lost on me. Relevance, thinking about thinking can be very difficult when you start to think that every detail is in fact relevant or a clue to a pattern. What I have learned in the synthesis is that the work of futures literacy and systems can be infinitely complex, and a lot of what I

encountered on the journey was left on the cutting room floor as they say. I think the complexity is a gift, it means there is still more to figure out and know.

A great example of complexity as a gift is the work of Dan Davies and The Unaccountability Machine (2024). Davis, an economist by trade wanted to understand why no one went to jail during the latest financial crisis. In times past, people who committed the same financial crimes were sent to jail. What he found through using VSM is that there is a pattern of creating unaccountability structures in financial companies, to complexify their operations so that no one individual could be held liable for the crimes. Interestingly, he cited that the business acted in a “criminogenic” way, meaning it was aligned for and always going to output criminal acts. What this means to me is that it is time to understand our media, boundary objects and systems patterns to diagnose them before they become criminogenic. Or at the very least, ask if our systems were people, would we want to spend time with them? If not, is there a way we could shift it so that we might want to?

Chapter 5 – Conclusion: From possible to viable futures

History rhymes because of our patterns, even though the poems humanity creates use different words.

Said in a cybernetic way, “the purpose of a system is what it does” (Beer, 2002b). Perhaps the question this paper ultimately asks is whether we can become more conscious of what our systems are doing before we accept their behaviour as inevitable.

This research began with a relatively simple concern: why do people, organizations and entire industries lose relevance even when they possess considerable talent, knowledge and resources? What began with the Canadian creative industries became a much larger inquiry into how systems perceive their environments, decide what matters, communicate that understanding and act upon anticipated futures.

The journey did not produce a new theory of relevance, anticipation, media or viability. Instead, it revealed relationships between theories that are already capable of describing important parts of the same problem. The contribution is therefore interdisciplinary. By placing these theories into conversation, this paper proposes that relevance can be understood not simply as a cognitive judgement made by an individual, but as a recursive systemic function that is mediated, translated, regulated and continually changed by the systems in which it operates. This bridge could be built out to a methodology that incorporates all three aspects of analysis, individual entities in a system, their boundary objects, mediums, and the patterns that emerge in relation to organizational viability. When combined with futures literacy efforts, this would also extend understanding to how viability may function in time to anticipate potential states of viability and what would be relevant in those futures where envisioned systems exist.

5.1 – Contribution of this study

The contribution of this research is a proposed synthesis: relevance can be understood as a recursive systemic function that connects perception, mediation, anticipation, translation and viability.

This does not suggest that Relevance Theory is organizational cybernetics, that McLuhan's tetrad is the Viable System Model, or that Futures Literacy and anticipatory systems are interchangeable. The value of the synthesis comes from examining the functions described by these theories and asking where those functions appear to interact.

This study suggests that there does not need to be one system-wide definition of what is relevant. Instead, viable systems may require recursive relevances: different levels maintaining sufficient autonomy to perceive their own environments while remaining sufficiently connected to the larger system to coordinate action.

A system can remain viable while its members disagree about what is important, provided that structures exist through which those differences can be translated, negotiated and incorporated into action. Star and Griesemer's observation that consensus is not necessary for cooperation becomes particularly important here. The objective is not to eliminate different relevances but to create the conditions under which they can interact productively.

This also changes how futures literacy efforts can be conducted. Futures Literacy is often valuable because it expands the range of futures that participants can imagine. This research suggests a complementary question: which of those futures are viable, for whom, at what level of the system and under what conditions?

This does not mean reducing possible, plausible or preferable futures to a single viable future. Instead, viability can become a grounding condition against which different futures can be examined. A future may be imaginable but not viable for a particular system. Alternatively, a future that initially appears impossible may become viable if the structures, functions or relationships of the system change. This could add to the idea of creating

responsible futures (Fuller et al., 2024) that are viable to start because they uncover what that means for different perspectives.

This creates what I have referred to as anticipatory variety: the diversity of relevant possibilities available to a system before it regulates them into action.

The contribution is therefore not an argument for more information. It is an argument for better mechanisms for selecting, translating and regulating information while preserving the diversity necessary for adaptation.

This is where the concept of the medium becomes particularly important. A medium can enable or disable action. It can positively enable participation, negatively enable undesirable behaviour, positively constrain harmful behaviour or negatively constrain possibilities. In doing so, media embed power within their structure as much as they reveal it.

If relevance is mediated, then designing the medium becomes part of designing the future. Rather than continually attempting to solve problems after they emerge, we might design the structures through which problems are perceived, translated and acted upon without having to worry that uncertainty is a constant threat.

5.2 - Further Research

What I find most exciting about this project is the potential research that it opens up. I started this project with the aim to help the Canadian film and television industry and I will close with that intention in mind. What this project has suggested is that there could be a practical way to think about building viable systems that integrates systems thinking with relevance processes that extend into the future. It is my hope to continue this research and find some colleagues to share the same desire to explore the following;

- To continue this journey another literature review would need to be done in order to examine the methodological literature of each domain covered in this research. This

would deepen the insights and potentially lead to a framework that could be tested and deployed for use by futures and systems practitioners by focusing on how system behaviours evolve with changes in mediation. I hope to continue with this research next before testing it in action for the media industry.

- An exploration into what measurements or signals indicate medium evolution or functional shifts would be very helpful for understanding the evolution of viability.
- A further study could ask, can the VSM diagnose relevance bottlenecks in organizations? A future study could map where signals enter, where they are filtered, translated and if/where they cease to influence action. This would identify possible avenues to support alignment.
- To create a further understanding of translation effects we could ask, do boundary objects increase anticipatory diversity and an acceptance of different relevances? Could this lead to a potentially positive view of uncertainty?
- In order to further connect systems approaches and futures literacy, an exploration of the question, under what conditions does anticipatory diversity shift to regulatory capacity, could potentially lead us toward an understanding of temporal shifts in thinking as they relate to anticipatory assumptions.
- How might the Viable System Model and the Adaptive Cycle work together to support each other in systemic understanding?
- Investigating systems thinking methods as media that expresses the future, in part through the structures that we create.

5.3 - Epilogue: Let's fix it in post because it tested well, also known as - The Horse Chair

This work changed my mind and behaviour – if the behaviour of your system was a person, it isn't hard, it's a type of story we have told since…always…would you want to spend time with it? I enjoy systems thinking and futures literacy because both acknowledge that we won't get the opportunity to fix the Earth or each other it in post with reshoots. Maybe

someday we can structure media and whole industries to consider the people in them, as much as we take into account the relevances of others around us.

Relevance has changed for me because as my wife and I were joking one day, while she was looking at a meme of a horse tied to a chair, with some caption like, free your mind, it occurred to me that we are tied to the functions of objects, not the objects themselves, meaning, awareness is the first step toward better tomorrows, today.

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