# EXCAVATING OUR FUTURES

Exploring Participation in Experiential Scenarios

by

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# ABSTRACT

In recent years, 'Experiential Futures'—"the practice of making manifest, one or more fragments of an ostensible future world in any medium or combination of media..."—has been used to bring hard-to-imagine, future possibilities into immediate and observable settings (Candy, 3). Yet, central to what is supposed to make Experiential Futures 'tick' is an experience which, up until this point, has yet to be studied with rigour. This project uses Interpretive Phenomenological Analysis (IPA) methodology, to explore in detail the thoughts, feelings and sense-making activities engaged in by participants during a set of student-led experiential scenarios staged at OCAD University in Toronto, Canada. Using in-depth, semi-structured interviews and empathy mapping exercises, experiential scenario participants were asked to recall their experiences to the researcher. The outcomes of this study are threefold:

I. a descriptive account of participant experiences during experiential scenario encounters. This account of participant perceptions, emotional responses and the formation of understandings, may help sensitize designers to their audiences.

II. an analysis of the participant experience during experiential scenario encounters. The analysis may help illuminate some of the unique merits and potential weaknesses of using experiential scenarios to explore possible futures.

III. an identification of aspects of the participant experience underserved in today's experiential scenarios. Designers may use this to enhance the participant experience.


KEYWORDS: Futures, Experiential Futures, Strategic Foresight, Interpretive Phenomenological Analysis

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# 1. INTRODUCTION

## 1.1 INTRODUCTION TO THIS PROJECT

In an era marked by rapid and often disruptive change, at stake in Experiential Futures is our ability to act with wisdom and agency in the creation of futures of our choosing, rather than passively adopting those which merely, 'come our way'. To do so, the practice is thought to manipulate the human preference for the immediate and tangible, to enhance engagement with—and the search for—just and viable futures (Candy, 17). It seems then, that central to what is supposed to make Experiential Futures worthwhile is an 'experience' which, up until this point, we know little about. Researchers have yet to study the participant experience empirically and as such, we do not know what the practice of Experiential Futures is *actually* doing for participants.

Thus, the undertaking of this research has been guided by the following research questions:

*What thoughts and feelings are made available to participants during experiential scenarios?*

*How do participants make sense of what they encounter in experiential scenarios?*

A reader may first ask, 'just what exactly are experiential scenarios'? What do they look like and where are they staged? Who are the practitioners and towards what end do they do this work? Before we pursue our investigation into the participant experience of experiential scenarios we must first say something about this practice more broadly.

The following section will use examples from the past ten years while engaging recent literature to provide readers with an introductory understanding of the practice as it stands today.

## 1.2 TOWARDS A DEFINITION OF 'EXPERIENTIAL SCENARIOS'

> *"Establishing a rigid perimeter or limit to the concept, as opposed to characterizing its centre...is not only redundant, but may be harmful to the creative dimension of the work." (Candy, 151).*

In this section, I will describe a variety of design outputs—their who, what, where, when and why—to provide readers with a landscape of the diverse creations I want to characterize as *experiential scenarios*. While respecting the differences between these various outputs, I will argue that they are most usefully thought of as sharing the same beating heart and thus the term e*xperiential scenarios* can be sensibly applied to them in each instance. In doing so, I hope to bring into sharper focus the specificity of the case study to be explored later on, while also justifying the pertinence of its findings to other experiential futures practices.

In this report, I adopt Stuart Candy's coinage of the term E*xperiential Futures (XF)* to denote the broad level of the practice as a whole, and *experiential scenarios* to denote the particular outputs of that practice (3).

## 1.3 GETTING FAMILIAR WITH TIME TRAVEL

When describing experiential scenarios to colleagues, friends and family, I am oft confronted with similar set of responses ranging from, 'that sounds a lot like theatre!,' or 'how is that any different than prototyping?' to, 'oh, that's nothing new...it's just interactive narrative.' And while these individuals are all totally correct, they are also equally wrong, because Experiential Futures is clearly more than just any *one* of these other activities; in fact Experiential Futures can sensibly be all of these activities (and more!) performed in varying degrees depending on the particular experiential scenario in focus. These individuals are also correct when they exclaim that Experiential Futures is not a *new* practice. This is because it isn't even *one* practice, but many different practices, growing in number and kind all of the time. What is *new* about Experiential Futures, are the resources being poured into the field, the attention it is receiving in the form of commentary, reviews and media coverage, the school programs designed to educate people about it, and of course, the vocabulary developed to name it, differentiate it and most generally, discuss the practice intelligibly.

So the challenge in defining Experiential Futures is not to answer a question like, 'what does the term 'Experiential Futures mean,' as a child might ask her parent as she inherits the meanings of her native tongue. Nor is the challenge to reason our way into subsuming Experiential Futures into a practice of a different name to which it may owe

a cultural, political or aesthetic debt as the individuals in the examples above attempt to do. While the similarities between these practices may help us shine light on particular qualities of the practice, it would be an act of mental gymnastics to think that any one or more of these related practice could be enlarged  to tell the whole story of Experiential Futures. Nor is the challenge to erect a wall around the concept of Experiential Futures in an attempt to include/exclude particular practices from 'Experiential Future-dom' for today and onward.

Instead, our task is to invigorate, the term 'Experiential Futures,' with meaning to satisfactorily capture the core of what has people excited about the practice today. Our task is to characterize the center of a diverse range of activities as they stand, without first steeping them in the past or trying to determine their shape for the future. What we are after is a snapshot of 'Experiential Futures,' its essence or zeitgeist, that respects what is making the practice worthwhile today, before this changes over time. This species of definition does not seek 'objectivity' but rather 'inter-subjectivity'. The truth condition for our definition is that it resonates with a large number of readers or more precisely, the designers and commentators of experiential scenarios. This challenge will surely hinge on our ability to characterize its center without losing feeling for those activities at its peripheries.

## 1.4 LETS EXPLORE SOME EXPERIENTIAL SCENARIOS

Let's take a moment to explore some of the diverse creations I will come to characterize as experiential scenarios. These examples have been selected for their diversity in an attempt to give readers a sense of the different practitioners, contexts, aims, outcomes and approaches involved in this work. An attempt to justify my characterization of these practices as experiential scenarios will not be made until the following section. However, in reviewing the descriptions below, readers are encouraged to consider for themselves, in what sense these practices may be labelled 'experiential.'

*Growth Assembly* (2009) by designers Daisy Ginsberg and Sascha Pohflepp, and illustrated by Sion Ap Tomos, "present seven prints of watercolour paintings, executed in the tradition of botanical illustrations (see fig. 1). The images depict seven plant species from a future where plants are engineered to grow the components of consumer products" ("Alexandra Daisy Ginsberg", 2009) . These illustrations were shown in gallery settings throughout Europe and the U.S.A accompanied by an artist statement including the following written scenario obtained from the designer's online portfolio:

> "After the cost of energy had made global shipping of raw materials and packaged goods unimaginable, only the rich could afford traditional, mass-produced commodities. Synthetic biology enabled us to harness our natural environment for the production of things. Coded into the DNA of a plant, product parts grow within the supporting system of the plant's structure. When fully developed,

they are stripped like a walnut from its shell or corn from its husk, ready for assembly. Shops evolved into factory farms, with licensed products grown where sold. Large items take time to grow and are more expensive while small ones are more affordable. The postal service delivers lightweight seed-packets for domestic manufacturers. Using biology for the production of consumer goods has reversed the idea of industrial standards, introducing diversity and softness into a realm that once was dominated by heavy manufacturing" ("Alexandra Daisy Ginsberg", 2009).

*Figure 1: 'Growth Assembly.'* "Alexandra Daisy Ginsberg". Daisyginsberg.com. N.p., 2016 Web. 22 March. 2016

*Growth Assembly,* like much of Daisy Ginsberg's work, 'imagines new roles and ideals for design's aesthetic and ethical futures' ("Alexandra Daisy Ginsberg", 2009). As such, I believe her aim here is predominantly exploratory. According to design professors , Anthony Dunne & Fiona Raby, "The combination of pencil drawings, cross-sections,

and vaguely recognizable mutated plant parts such as thorns, husks, and vines suggesting machine components achieves just the right level of plausibility" (Dunne & Raby, 113). *Growth Assembly* effectively crafts an abstract, yet provocative idea about the future in detail through the medium of illustration. Viewing large scale environmental and economic change at the scale of the particular plants illustrated, evokes challenging emotions in audiences and draws us into a deeper consideration of the relationship between nature and human productivity.

*Designs For An Overpopulated Planet: Foragers* (2009) by design professors Anthony Dunne & Fiona Raby, explores the futures of farming in the face of global food shortages due to rising populations and overconsumption.

> "[This project] looks at evolutionary processes and molecular technologies and how we can take control. The assumption is that governments and industry together will not solve the problem and that groups of people will need to use available knowledge to build their own solutions, bottom-up...What if we could extract nutritional value from non-human foods using a combination of synthetic biology and new digestive devices inspired by digestive systems of other mammals, birds, fish and insects? As such, a group of people take their fate into their own hands and start building DIY devices. They use synthetic biology to create "microbial stomach bacteria", along with electronic and mechanical devices, to maximize the nutritional value of the urban environment, making-up for any shortcomings in the commercially available but increasingly limited diet...." ("Dunne & Raby", 2009).

The objects designed in this project were built in the flesh to be viewed 3-dimensionally in a gallery or museum. While they did not work as the external digestive

technologies they purported to be, their realism is grounded in the precedents set by guerrilla gardeners, garage biologists and freegans working at the fringes of society. By adapting and expanding their strategies, these designs became models to help audiences speculate on what might happen in the future ("Dunne & Raby", 2009). As such, the aim is both exploratory and educational. Dunne & Raby also created renderings, photographs and a concept video to help situate these objects in the context of their use during gallery presentation (see fig. 2, 3). The objects equivocate between human desperation and inventiveness in the face of extreme food shortage: are these designs a testament to human ingenuity and proud solutioning, or simply the best that people could do in the face of extinction?

*Figure 2: 'Designs for an Overpopulated Planet: Foragers 3.'* "Dunne & Raby". Dunneandraby.co.uk. N.p., 2016. Web. 22 March. 2016

*Figure 3: 'Designs for an Overpopulated Planet: Foragers.'* St. Etienne Design Biennale. *http://www.core77.com/posts/17952/between-reality-and-impossible-dunne-and-raby-at-st-etienne-biennale-17952. N.p., 2016. Web. 22 March. 2016*

*Hawaii 2050* (2006) was a statewide public planning conference held in 2006 to spark conversation about the possible futures of the island of Hawaii (Candy, 96). Futurists Stuart Candy and Jake Dunagan[1] were asked to bring an alternative futures angle to that conversation and did so by kicking off the conference with a set of physically immersive scenarios. This took the shape of four rooms, each set to explore different possible futures for the state of Hawaii. Attendants at the conference were divided into four groups and ushered into one room at a time followed by a facilitated discussion in smaller groups (Candy, 96). Within each room a particular situation set in a possible

1 This was under the auspices of Jim Dator and the Hawaii Research Center for Futures Studies. There were dozens of volunteers collaborating on this project including a number of designers, artists, musicians, and actors.

2050 for Hawaii was staged using a variety of designed objects, costumes, dialogue and activities. An abstract account of what those first two-of-four situations were like might read:

1. a live debate for Governorship between candidates representing corporations which had been given the right to personhood—and therefore the ability to run for office—some years earlier (see fig. 4). The first candidate represented 'Aloha™ Nuclear and Water' a company responsible for securing islands power and potable water needs (Candy, 97). The second candidate represented, Kobayashi™ Virtual Concern, a company responsible for an extremely popular immersive cyberspace, bidding to use Hawaii as a testbed for integrating the virtual and the real. People in attendance were given the role of members of a Hawaiian Electoral College and after listening to each candidates speech, they were able to pose questions and eventually select their preferred candidate (Candy, 97).


*Figure 4: 'Hawaii 2050- Orange Room.'* Stuart Candy, Jake Dunagan. 2006. *http://futuryst.blogspot.ca/2006/08/hawaii-2050-kicks-off.html N.p., 2016. Web. 22 March. 2016*

2. a naturalization ceremony for landed refugees to Hawaii (played by the conference attendants) from Pacific islands which were disappearing due to rising sea levels (Candy, 98). The refugees were ushered into rows and shown a video which explained the tumultuous history of Hawaii, from European contact until the present day (see fig. 5). In the face of an economic meltdown some ten years back, the wealthy business owners on the island had fled leaving Hawaii to be ruled by the US military responsible for maintaining law and order, and the rationing of scarce goods such as food and fuel (Candy, 98). The refugees were given citizenship cards and asked to swear an oath to the monarchy leading the so-called, 'Democratic Kingdom of Hawaii'.


*Figure 5: 'Hawaii 2050- Silver Room.' Stuart Candy, Jake Dunagan. 2006. http://futuryst.blogspot.ca/2006/08/hawaii-2050-kicks-off.html N.p., 2016. Web. 22 March. 2016*

According to Candy, the futures explored in *Hawaii 2050*, "...were not predictions, nor even forecasts, of Hawaii's future. Each was based on its own carefully researched and

constructed narrative and historical logic. And the four experiences deliberately pushed the bounds of credibility, each in a different direction, stretching imaginations and inviting expanded perceptions of Hawaiian history's multidimensional potential" (Candy, 102). The experiences were used to provide participants with common experiences and a shared reference point to take with them into the conversation that would be held throughout the rest of the conference.

*New York Times Special Edition* (2008) by New York-based political activist duo the Yes Men and artist Steve Lambert, saw thousands of New Yorkers deceived by the distribution of an alternate version of the New York Times (see fig. 6). To the surprise of the commuters who received the paper that day, headlines announced the indictment of President George W. Bush on charges of high treason, the war in Iraq had ended and the oil industry would soon be made public, contributing its profits to the mitigation of climate change ("The New York Times Special Edition", 2008).


*Figure 6: 'New York Times Special Edition.'* Steve Lambert, Andy Bichlbaum of The Yes Men. 2008. *http://visitsteve.com/made/the-ny-times-special-edition/. N.p., 2016. Web. 22 March. 2016*

Without invitation, the *New York Times Special Edition* succeeded in drawing the public into an experience of a possible—and for many, preferable—future through its rigorous attention to detail; the look, feel and tone of the paper made it a convincing replica of the real thing. According to Steve Lambert, "We wanted to experience what it would look like, and feel like, to read headlines we really want to read. It's about what's possible, if we think big and act collectively" ("The New York Times Special Edition", 2008). For those who were deceived, the realization that this was not what had actually transpired may have been accompanied by feelings of embarrassment and even anger. Yet, I can see how the encounter may have equally inspired a frustration with the institutional status quo that sustained the unreality of those headlines. This

frustration may have been productive in its ability to activate individuals to put pressure on institutions to make those headlines a reality or at least to question their own assumptions of personal passivity in relation to those issues.

The purpose of this section has been to explore a number of different creations to be characterized as experiential scenarios. Each new case explored numerous differences from the last including variations in practitioners, contexts, aims, outcomes and approaches. In particular, it is important to note that the practices and practitioners noted here use different terms to discuss their work. These include 'design fiction', 'speculative' and 'critical design' and 'artistic activism'[2]. By applying the term Experiential Futures to this work, I hope to show that what these practices share in common outweighs their many differences. Most significantly, the definition offered in the next section will lay the groundwork for helping readers see a common range of experiences afforded to participants in these practices. This section will therefore help readers see the case study presented later on in this paper for both its specificity as well as its generalizability in relation to other Experiential Futures practices.

## 1.5 NARRATIVES OF FUTURITY

In Paul Graham Raven and Shirin Elahi's 2015 article, *The New Narrative: Applying narratology to the shaping of futures outputs*, the authors endeavor to explain how

2 Dunne and Raby, 2013; Bleecker, 2009

narratological strategies, taken from literary theory, film theory and science fiction criticism, can be applied to the design of final outputs in futures studies (Raven and Elahi, 2015). Their basic argument is to show how on the level of narrative, futures studies outputs (including written and experiential scenarios) are fundamentally the same as the outputs of a number of other practices in which narrative strategies are commonly applied. They give the name, "Narratives of Futurity" to this broad category of narrative types (Raven and Elahi, 50). Their argument follows that if a narrative strategy can be usefully applied in one of the outputs in this class, it should prove applicable for the others in that class as well. An in-depth look at Raven and Elahi's definition of, 'Narratives of Futurity,' will help shed light on our challenge of capturing the core of Experiential Futures in a definition.

In Raven and Elahi's article, the term, 'Futures,' is used to denote the various outputs of futures studies, including but not limited to written scenarios, designs, growth forecast plots and videos (Raven and Elahi, 50). According to the authors, these outputs belong to an even larger category of outputs united by a common approach to narrative:

> "'Futures' are not a special or unique type of text...they belong to a broader category of works that includes product prototypes, political manifestos, investment portfolio growth forecasts, nation-state (or corporate) budget plans, technology ad spots, science fiction stories, science fiction movies, computerized predictive

> system-models, New Year's resolutions, and many other narrative forms...While they may differ wildly as regards their medium, their reach, and their telos, all of these forms involve *speculative and subjective depictions of possibilities yet to be realized"* (Raven and Elahi, 51).

Ignoring for the moment the other outputs that are supposed to belong to this category, we can evaluate the suitability of the phrase, 'speculative and subjective depictions of possibilities yet to be realized' using the experiential scenarios described previously.

Since the future is unknowable in advance, the works I described previously are all inherently *speculative* because they depict in impossible detail, one among many alternative futures. With the number of possible futures increasing the further into the future we go (Candy, 34), an experiential scenario may be more or less probable, but always equally *speculative*[3]. This is because there are no facts about the future on which to base our depictions. However, in all of the instances above—whether staged for the purposes of exploration, education, evangelism, or entertainment—the aim is to prolong and deepen engagement with a future world, regardless of its speculative nature (Candy, 115). Futures studies embraces speculation as a necessary premise, enabling us to think more rigorously about the future[4].

3 For example, if we set a scenario in the nearest future it may be quite probable that many of the elements in that scenario actually occur. For example, say we depict a Toronto—set the day after tomorrow—where people wake up to the sounds of their own alarm clocks in the morning. This is certainly a very probable prospect. However, this depiction is still completely speculative because it is based on conjecture rather than fact.

4 de Jouvenel, 2012

Contrast the use of speculation in futures studies with the speculation involved in prototyping (see fig. 7). In prototyping, speculation is used to instantiate ideas about how the user may interact with a design, the aesthetic most attractive to a particular user-group, the learnability of a particular service or the desirability of the product or service as a whole. Speculation is used as a starting point; it satisfices as a way forward in the design process ("HCD Toolkit", 2011). However, with each iteration, the prototype should become less and less speculative because the hypotheses which inform its design are tested against the real world and with feedback, are slowly affirmed as knowledge. In the experiential scenarios described earlier, the future does not exist in order to confirm or contradict with the speculative content of the designs. There is no knowledge of Hawaii 2050, to affirm or deny a *Hawaii 2050* scenario as fact. Only time will tell whether humans will come to rely on external digestive systems for nutrition as in *Foragers*. But to think that a lack of verification is of issue for the practice misses the point entirely. Experiential scenarios revel in their speculative nature because as a way of helping us think more clearly about what is possible, probable and preferable, it orients us on new paths to action[5]. Thus, the creations described in the previous section are unapologetically *speculative* in a way particular—but not exclusive to—Experiential Futures. In this paradigm, the thoughts, feelings and responses had

5 Some of the other narratives to which the authors want to generalize as 'speculative' have very different relationships to this concept. A New Year's resolution is not in *itself* speculative but actually just a proclamation of the speakers intended path of action. One may speculate whether *that person* will do as they say, but the resolution itself is not really speculative because they have full control over their actions.

when engaging with speculative work is privileged over concerns of their truth/falsehood because of their power to shape opinion and move people towards action. When understood in this way, we can confirm that experiential scenarios are indeed deeply 'speculative.'

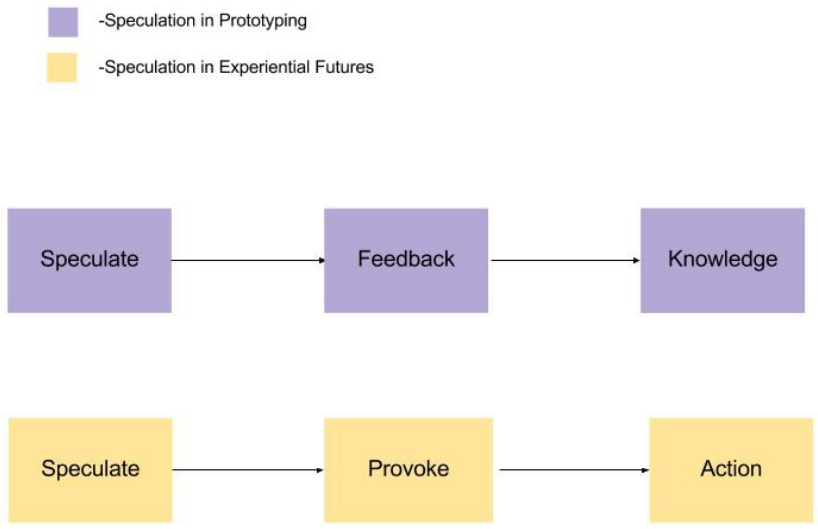


*Figure 7: 'Two Uses of Speculation':* the use of speculation in Futures Studies is compared to the use of speculation typical in prototyping

Since there is no pre-scripted, canonical 'Future' to depict, the works described previously are all inherently *subjective*. The future they portray, while usually informed by data of some kind is always interpreted by the working subject(s) and born into products of imagination. In doing so, the authors lay bare their personal and collective

expectations and assumptions about the future. "...the value of a scenario is not to be judged by the extent to which it 'gets the future right', but solely by the extent to which it enables us to re-perceive the present, leading us to ask more penetrating questions of it" (Candy, 92). Further, since the 'Future' isn't the kind of thing that can be portrayed in its entirety, we can recognize the fragmentary nature of the examples in the previous section. The worlds portrayed are partial; fragments of a whole created by interpreting subjects with a particular outlook on that world. *Foragers* asked its audience to consider a future of mass food insecurity via the ingenuity of designs made to 'hack' that problem. *Hawaii 2050* utilized four different events—people placed in a particular location, at a particular time, for a particular reason—to help participants consider a wider range of possibilities for Hawaii come 2050. The point is that in selecting the places, people, things, etc. used to render these potentials concrete in the present, designers make possible worlds artificially specific and in doing so, offer up their own biases and assumptions as fodder in the conversation.

That what gets depicted in the outputs of futures studies are *possibilities* can be read in two ways. The first is simply that as an upshot of the unknowability of the future, what we depict in our work are possibilities, contingencies dependent on what happens next. Alternatively, *possibilities* can be understood as a normative statement about the condition of plausibility in the work. While each of the examples in the previous section depict things that have not happened, they go through great efforts to ensure that

what is depicted appears within the limits of the possible, both physical and social, given the time horizon in question. While this process typically starts early in the foresight process when researchers identify trends and drivers to ground the study in the past and present, it is also carried forward into the design of futures outputs. In every decision made, designers balance their desire to provoke with that to convince. I mentioned earlier how *Growth Assembly* uses a form of illustration typical of horticultural drawings and great attention to detail to seduce viewers—in spite of the pseudo-science involved—into a deeper consideration of a world where plants are used to produce mechanical parts. The *New York Times Special Edition* was so thoroughly plausible upon first glance that it was perceived as an actuality by many of those who encountered it. Unlike works of fantasy, which depict things which *could not have happened*, experiential scenarios hinge on their ability to persuade audiences into believing that a given thing could *possibly* come to pass. Thus, when used to refer to this criterion, 'possibility,' excellently describes what gets depicted in experiential scenarios.

Finally, the notion that futures outputs involve the depiction of possibilities y*et to be realized* speaks to the political dimensions of the practice. The implication of the phrase, *yet to be realized* is that today's decisions can be used to encourage, resist or alter the path of the change depicted. In other words, the possibilities we depict become politicized the moment we place them on our temporal track from the present

to the future. This is contrasted with a work of historical theater where no matter how much an individual may want to recreate aspects of the period depicted, the conditions which gave rise to that era may no longer bear any resemblance with those of the present day. "There are no past possibilities, and no future facts" (Brumbaugh, 649). Since in futures work we 'sow the seeds' of our scenarios in the present and project a set of possibilities amongst many forward into the future, the space we create in-between becomes one of great contestability[6]. "The generation of alternative futures, then, provides a series of virtual standpoints from which to critique (or for that matter appreciate) the present, and principles of action to act within it" (Candy, 146). Viewed from the perspective of *Foragers,* the disconnect between today's bottom-up and top-down responses to our growing ecological challenges, along with accompanying questions of responsibility are brought into sharper focus. Thus, the phrase 'yet to be realized' applies to experiential scenarios with a special evocation of the contingency of what is depicted.

When understood according to the above reading, Raven and Elahi's definition for the class of narrative forms they call, "Narratives of Futurity," captures in its net the broad range of examples explored in the previous section. Yet, the extent to which we have applied special meanings to these terms in order for the experiential scenarios explored earlier to sit comfortably within this category, may challenge its ability to embrace the other outputs said to belong to this class. However, for our own purposes,

6Nandy, 1996; Dator, 2005

Raven and Elahi's 'Narratives of Futurity,' has provided us with an excellent foundation upon which to formulate a definition of Experiential Futures as a practice. Having appropriated these terms for our own uses, we can now asses whether or not there is anything left to be added to this definition of Experiential Futures.

## 1.6 THE 'EXPERIENTIAL' FUTURES

In the phrase, 'speculative and subjective depictions of possibilities yet to be realized' the word, 'depiction' is far too opaque for our purposes. Surely, what sets Experiential Futures apart from other futures outputs, and the reason why the term has been picked up by practitioners and commentators alike, is that it says something about *how* possibilities are depicted in this practice. Caught up in the sweep of the broad definition Raven & Elahi are using, that particular strategy which I believe sets Experiential Futures apart, is surrendered as collateral. It is this strategy, or rather principle of the practice, which we must emphasize in our own definition; namely, its use of the *Experiential*. This omission is best observed in the following discussion of the suitability of the term 'Futures':

> "...as a catch-all term for the outputs of foresight practices- be they designs, prototypes, scenario sketches, videos, growth forecast plots- 'Futures' is succinct but problematic; it conflates the sign with the signified. The 'Futures' thus produced are not actual futures, but *subjective depictions of possibilities yet to be realized*." (Raven and Elahi, 50).

While correct in a strictly linguistic sense, when one is asked to read or experience a scenario in futures studies—and in experiential futures in particular—we are to do so as if it *were* the future and not merely *about* the future. As futurists, we deliberately conflate the sign (ie. the subjective depiction of possibilities yet to be realized) with the signified (The Future) in order for the full benefits of the work to be gained. Even in scenario development—a practice core to state and corporate strategic foresight practices—scenarios are usually told in the present or past tense as if that scenario is transpiring before us or has already transpired. Thus, we attribute the name, 'Futures' to the outputs of futures studies because it says something useful about how the *subjective depictions of possibilities yet to be realized* should be depicted. For Raven and Elahi's purposes, this may be just one among many strategies available to the 'Narratives of Futurity,' but for Experiential Futures in particular, it is absolutely essential. So, let's explore further what is meant by *experiential* in the context of futures studies.

In Stuart Candy's 2010 Ph.D dissertation, *The Futures Of Everyday Life,* he describes an 'Ontological Spectrum' charting various modes of representation alongside the ontological weight participants attribute to those experiences.

> *"*We can imagine these modes as falling on a kind of spectrum of representations ranging from completely real to completely imaginary. The three key markers to plot are the reality bedrock 'is' at one end, the pure supposition of 'what if', at the other end, and the mimetic 'as if ' in between. We'll call this the ontological spectrum." (Candy, 258).

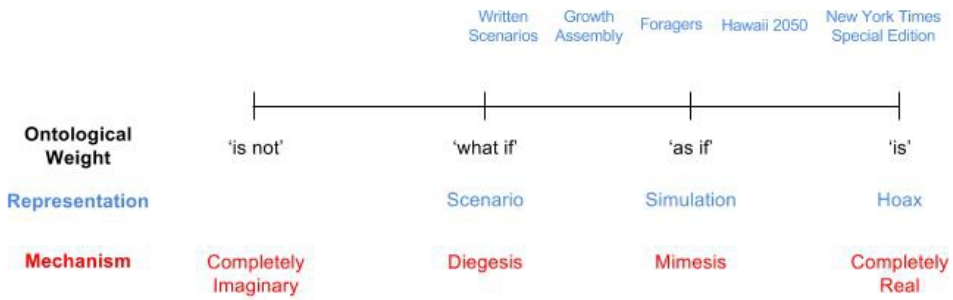


*Figure 8: 'Ontological Spectrum' with exemplary representations labelled above.*

The Ontological Spectrum helps explain how different representations give rise to different forms of engagement from participants based on the ontological weight those experiences are given (see fig. 8). At the far left side of the diagram, we have added the completely imaginary, 'is not,' in order to depict the full range of ontological assertions. At 'is not' we find the ideas and images we may entertain in our imagination but never give medial form to; they are pre-representational. As we move right along the spectrum, imagination is given medial form, engaging participants in consideration

of 'what if' this or that, occurred. These representations are best understood as 'thought experiments' enabling participants to explore through imagination, things unobservable in the present moment (Candy, 262). They demand little ontological weight to be applied to them. I am free to consider, 'what if pigs could fly' or 'what if post-secondary education was free to all Canadians' without departing from my everyday factual surroundings. While written scenarios are clearly representations of the, 'what if' variety, their use of present and past tenses edges them closer towards 'simulation'; by reporting the events 'as if' they are happening, we as readers have an easier time considering their implications. In general, the more a 'what if' representation can *show* us of the world it is conventionally set to *tell* us about, the more we experience it 'as if' it were happening. As such, *Growth Assembly* can be plotted to the right of written scenarios because in utilizing illustration as a medium (and in particular embracing the non-fictional tropes of horticultural drawings), the audience is shown what these plants look like 'as if' they existed and could be made known to us in the visual field.

*Foragers* takes this one step further in building a physical artifact. This practice is usually referred to as 'design fiction' or more recently, 'speculative design' (Dunne & Raby, 2013). In these representations, the physical presence of a foreign object sharing your same here and now, "...declare[s] *is* as a way to seduce you into considering—and feeling, if only for a moment—*as if*" (Candy, 267). In other words, the artifact's sheer

physical presence opens up a very slim fragment of that world for audiences to experience 'as if' that world really existed. The narrow entry these artifacts provide out into the world inspires our curiosity and encourages our consideration for the imaginary context of its use. This decontextualization of the artifact—especially when the artifact is presented in the starkness of a gallery or museum setting as with F*oragers*—underscores the unreality of the artifact and thus its simulative rather than real nature.

One might ask but what exactly do Design Fictions simulate? What are we to experience 'as if' it were real? Following Raven & Elahi, I believe that Design Fictions tell stories, albeit limited ones, which we entertain 'as if' real while in their presence (53). First, lets explain a few useful terms we will utilize throughout this report: *narrative*, *story (a.k.a plot)* and *story-world*. Simply put, "...a *narrative* is one possible subjective account and interpretation of a sequence of events (*story*), in a specific time and space (*story-world*)" (Raven & Elahi, 51). For example, Homer's, *Odyssey*, is a *narrative* told by Homer, of the *story* of Odysseus' journey home after the fall of Troy. Set in a *story-world* too large to illuminate in full, some of the key elements may include: ancient Mediterranean geography, the historical battle at Troy, a pantheon of gods whose actions directly impact humanity and the existence of monsters.

The same terms may be applied by audiences to works of design fiction. We know that as objects of human production, a process of design likely preceded the product standing in front of us. Now, as a practice largely concerned with the fulfillment of human needs, in "...design, the *plot* is analogous to the goals which the design is intended to accomplish..." (Raven & Elahi, 53). For example, 'the mailman opens the mailbox' is a *plot*, albeit a short one, that the designer of a mailbox may have had in mind when designing a mailbox that opens. The *plot* in *Foragers* may run something like, 'the urban forager digests trash.' The *narrative* or subjective account of these stories are expressed in the particulars of their designs. For example, the mailbox may be round or square, black or silver, attached to a wall or freestanding, and it may open manually or automatically. In *Foragers,* the digestive devices were handheld and bright green in colour with narrow insectile tubes running into masks and mouthpieces. These are decisions made by the designers in interpreting the *story* of their use.

In the context of product design, the *story-world* is almost always the present day world of commercial use (Dunne and Raby, 12). Meanwhile, in design fiction the story-world is much more various and often more difficult to discern from just one or more artifacts. The story-worlds of design fiction are often shaped by different ideals, values and beliefs from the present day, making the act of recreating that world part of the interpretive challenge as an audience member[7]. The degree to which audiences are

7 The process used to arrive at the story-worlds in Dunne & Raby's work is unknown to me. In *Hawaii 2050,* the story-worlds were derived from the alternative futures method used at Hawaii Research Center for Futures Studies. Presumably, the different intentions of artists vs. futurists

able to reconstruct the story-world while experiencing a design fiction and to what extent this is important to the practice will be discussed in the final section of this paper. We can now see how common to any designed object, design fictions imply, "...an encounter between a character with agency and an object in a contextual world..." (Raven and Elahi, 53). They tell micro-stories of use within a possible world[8]. The sheer physical presence of Design Fictions helps us engage with these stories 'as if' the world they instantiate were momentarily our world.

As representations move further along the Ontological Spectrum—from 'as if' towards 'is'— the ontological weight attributed to the experience rises significantly. In order to achieve this, the immersive quality of the experience nears 'completeness.' *Foragers* focussed the attention of its audiences on the objects in the exhibition; ignoring as insignificant, the gallery context within which it was staged. The environment surrounding this work is set temporally and conceptually apart from the *story-world* those objects were made to evoke. In contrast, *Hawaii 2050* attempted to create 360 degrees of immersion by casting the audience into the *story-world* and providing them with a role in the development of the *plot*. It also meant that 'latent' objects, such as the chairs people sat in during a few of the scenarios, were not chairs from 2006 to be ignored as outside of the frame of the experience, but chairs from 2050 and very much

would shape audience expectations and engagement with the material.

8 The real difference between a design fiction and a experiential scenario—beside the contextual differences in how its practiced—appears only to be one of breadth and medium of the designed elements indicative of their story-world. An experiential scenario contains numerous design fictions but also characters, interactions and other experiences.

within the *story-world*; though perhaps insignificant to the *story*. The scenarios in *Hawaii 2050,* challenge participants to interpret anything that they apprehended while within that room as something belonging to the year 2050. The closer this immersion nears to 'completeness'—*what proportion of the things encountered in the experience could be believably thought to originate from that story-world*—the more ontological weight participants attribute to what they experience. This points to a critical difference between the generally fragmentary, artifact-based efforts of design fiction and speculative design, and the intent of more immersive experiential scenario practices. In the case of the latter, there is 'more of the world' available for participants to think and feel with, affording them greater opportunity to formulate hypotheses about the story-world they are inhabiting.

However, it is important not to mistake the sheer *quantity* of materials produced for this purpose with our notion of 'completeness.' Take for example, *The New York Times Special Edition* where a single artifact was produced to the effect of creating complete immersion for all of those who encountered it. It did this by turning the approach found in *Hawaii 2050* on its head. Rather than manicuring a vast number of details in a relatively controlled environment to evoke a particular story-world, *The New York Times Special Edition* slid unbeknownst into the routine of its audience and in doing so, seamlessly linked the present day with a story-world where politicians and corporations were acting quite differently than usual. The individuals who received *The New York*

*Times Special Edition* were completely immersed, because they were never asked to leave the *story* of their daily commute. In a successful *hoax*, the proportion of things in the experience believed to have originated from the *story-world* is always 100% because the *story-world* 'is' real to those individuals for the duration of their deception. For those people who received a *The New York Times Special Edition* that day, the hoax likely wore off as they read the paper itself, which was not intended to sustain belief for more than a moment, or as other news sources and/or conversations with peers exposed inconsistencies with the headlines they had observed earlier in the day. In other words, their subsequent experiences chipped away at the credibility of the spoof newspaper and as the only artifact supporting that story-world, its reality collapsed in on itself.

This section explored how *speculative and subjective depictions of possibilities yet to be realized* are depicted in the handful of creations I want to call experiential scenarios. A stroll along the Ontological Spectrum showed that each of these creations demanded different forms of engagement from their audience; from written scenarios that ask us to consider 'what if' something were to happen, and simulations that invite us to experience something 'as if' it were happening, to hoaxes that convince us that something 'is' happening. We observed a myriad of different ways of *depicting possibilities yet to be realized* and their relative ontological 'ask' from participants. We noted how particular grammatical tenses as well as an appeal to a wider range of

senses through tangible media slide the dial from 'what if' to 'as if'. In the transition between 'as if' to 'is,' the completeness of the immersion and the extent to which one's own universe may have been 'broken upon entering' the *story-world* were two significant 'dial-sliding' variables we explored.

But how might we characterize this movement from left to right along the Ontological Spectrum? Let's return to this notion of conflating the sign with the signified. As we move right along the Ontological Spectrum, we lose our awareness of the representational nature of what we experience. Our experience becomes less like experiences of *speculative and subjective depiction of possibilities yet to be realized* and more like visits to various futures. The intention to push the mode of engagement from left to right along the Ontological Spectrum is what I believe characterizes Experiential Futures as a practice and is denoted by the term, *experiential*. Just how far along the spectrum a designer may want to land in a given project depends on its aims, the subject matter and the means available to her. This push towards the *experiential* is not just one narrative technique among many available to Experiential Futures as a 'Narrative of Futurity,' but is the central tenet of the Experiential Futures. While there is surely much to learn from the study of narratology, an approach that first softens the significant differences that exist between a variety of practices in order to ease comparison, may find difficulty in contributing to the practice on a level that practitioners find useful. Thus, any bearing the field of narratology may have on how

we design Experiential Futures should be ascertained from within the framework of Experiential Futures and its commitment to the *experiential*.

Thus, as a point of departure for a paper-concerned with the participant experience in experiential scenarios- we can think of *experiential scenario*s as:

> *"Speculative, subjective and experientially apprehensible possibilities yet to be realized"*

While not the most obvious definition of Experiential Futures available in the literature, this phrase can be used as a prompt to help recall the core tenets of the practice. Unlike other definitions which explain in greater clarity *what* is done and *why,* this definition may prove particularly useful to designers and commentators alike, because it also says something more about *how* 'Futures' are made manifest in Experiential Futures.

# 2. PROBLEM FRAMING

## 2.1 INTRODUCTION TO SECTION

> *"...the decisive, interpretive moment occurs at the reception end, rather than the broadcast, end…" (Candy, 253).*

In the previous section, we recounted a variety of experiential scenarios and engaged with a recent article about narratology in Futures Studies to help us create a satisfactory definition of Experiential Futures. As we discovered, it is the intention to push the mode of engagement further along the Ontological Spectrum and into the *experiential,* that sets Experiential Futures apart from other practices. In making this claim, I have created an hypothesis about the way participants engage with experiential scenarios. This section will argue that any claim about Experiential Futures which characterizes the participant experience should start and end with examination of the empirical world.

As a practice grown in recent years to reach a 'critical mass' of practitioners and their work, a more detailed look at what experiential scenarios do for participants is not only necessary for the reason stated above but also timely for the field in general. What hangs in the balance isn't whether or not experiential scenarios are unique or valuable —anyone who has encountered an experiential scenario will attest to the sheer awesomeness of the experience—but for *what reasons* it is unique and valuable. A better understanding of what makes this practice 'tick' for participants may aid practitioners in enhancing these experiences through their designs. This section will frame up the field research I conducted in order, I. to create a fuller descriptive account

of participant experiences during experiential scenarios, II. to demonstrate a fruitful model for empirical analysis of the practice, and III. to highlight those aspects of the experience that may have escaped the literature thus far, remaining underserved in the bulk of todays' designs.

## 2.2 EXPERIENCE DESIGN & EXPERIENTIAL SCENARIOS

A different take on the comparison made in the literature between experience design and Experiential Futures (Candy, 166) will provide us with an opportunity to frame the challenge at hand. Experience designers typically start their design process by getting to know the people they are designing for and end the design process with the proposal of new tailor-made solutions to suit their needs ("HCD Toolkit", 2011). Experience designers put their users at the center of the design process, allowing their needs to determine both *what* is designed and *how* it is designed. For example, a design research project exploring how the elderly communicate with their younger family members unearthed a variety of insights about their user group (Sanders and Stappers, 104). One insight was that grandmothers would like to have initiative in communicating with their grandchildren but lack the computer-skills necessary to reach them online. The solution the designer proposed was a family weblog with a special controller interface designed specifically for grandmothers to use (Sanders and Stappers, 104). This is the *what* of the design. The controller automatically scanned and uploaded photos and letters written by grandmothers to the weblog they shared with their grandchildren. Content contributed by the grandchildren could be viewed on the

grandmothers' TV with the aid of a TV remote adapter (Sanders and Stappers, 104). This is the *how* of the design. Thus in an instance typical of experience design, an improved understanding of a user group informed the selection of the *what* as well as the *how* of the intervention. In this case, the *what* included the design of a new product and an integrated web application, but this was not decided in advance of understanding the needs of those users.

The identification of user needs and the subsequent (re)jigging of tools to better serve them provides an excellent model for how designers of experiential scenarios may come to apply their craft. Experiential scenarios should be understood as one amongst many solutions available to designers and futurists to achieve a given outcome. However, without a firmer understanding of the range experiences made available to participants via this practice, it may be hard to know when the staging of an experiential scenario poses as an appropriate solution. While practitioners typically, 'learn from what works' and advance their practice iteratively, there remains an opportunity to add rigour to this study and advance an understanding of the practice centred around those for whom it is practiced. Without detailed feedback from participants who have themselves encountered experiential scenarios in the fullness of their own experiences, the practice cannot hope to increase its self-understanding and place amongst a range of other experiences worth creating.

Thus, our task is to reverse engineer from accounts given by *participants in experiential*

*scenarios* an answer to the question, 'what job(s) do experiential scenarios perform well'? In other words, now that we know *what* experiential scenarios are we can ask *why* they should be built and shared. We saw previously that experiential scenarios are typically created with the aim of encouraging exploration, to educate, to evangelize and/or to entertain (Candy, 115). But why use experiential scenarios to these ends and not some other practice? In the language of the previous chapter, what can participants tell us about the value of 'speculative and subjective depictions of possibilities yet to be realized' made experiential?

## 2.3 WHY REAL-LIFE PARTICIPANTS COUNT

But why does this need to come from the *participants* of experiential scenarios? Surely, designers know what their designs are capable of; they think through the outcomes of their decisions and are often in a position to experience it themselves. Plus, they can always read and listen to what other designers have done in their own practices around the world[9]! While these sources of information are undoubtedly helpful in improving one's dexterity as a practitioner—expanding one's range of known strategies and contributing to best practices shared across the field—these methods appear predominantly designer-centered. They tend to ignore that, '...the decisive, interpretive moment occurs at the reception end, rather than the broadcast, end…" (Candy, 253). As a practice professing to have great political import (see introduction)

9 This is largely rhetorical because far too many experiential scenarios go undocumented and under-shared. There is great need to pool together records of experiential scenarios to have at our collective fingertips in order to enhance self-understanding and growth in this field.

the success condition for a given scenario belongs to the domain of experience of those participating. It is for the participants that the experience is designed and only through them that a clearer understanding of the practices' unique qualities may be gleaned[10]. A failure to cultivate a deeper sense of audience through direct engagement with these individuals, may lead this practice down a path to insularity: where what is created is also consumed by same group of people, instead of benefiting a wider audience. As a practice fundamentally concerned with the shaping of experience, an exploration of what this practice is like for those who experience it, must be carried out empirically. No amount of speculation or practitioner participation in experiential scenarios will grant access to this important source of feedback.

## 2.4 CLARIFYING THE RESEARCH QUESTIONS

Thus, the undertaking of our case study has been guided by the following research questions:

*What thoughts and feelings are made available to participants during experiential scenarios?*

*How do participants make sense of what they encounter in experiential scenarios?*

10 Designers and futurists may also gain a great deal from a visit to an experiential scenario of their staging. The lessons learnt therein may be used to revise their written scenarios and aid in strategic planning. However, the experiences of designers in the *process* of designing experiential scenarios appears to be of secondary importance to the practice at the time of writing. The benefits a participant may derive from working alongside designers in the co-creation of experiential scenarios may be an opportunity worthy of further exploration.

At this first appearance of the term 'sense-making' one might be curious as to its relevance to the research project as framed. The term, 'sense-making' is used at this stage to denote an interpretive process through which, what meets one in experience is made meaningful in the form of thought, feeling and action. Given that experiential scenarios are participatory and non-propositional by nature—participants are engaged 'as if' something were happening and not, 'what if'—there is never a single conclusion to be made about the experience, nor a 'correct understanding' to be achieved. As such, we need a sufficiently broad notion of 'sense-making' if we are to do justice to the phenomenon under study. Sense-making is essential to understanding the participant experience in experiential scenarios because it is the interpretive process linking the *experience-as-designed* with the *design-as-experienced*. With a better understanding of how participants make sense of what they encounter in experiential scenarios we may find new ways to support and enrich this process.

Our use of the term 'participant' is intended to denote the primacy of the encounter with the experiential scenarios. Our 'participants' are the audience an experiential scenario was initially designed for on the day(s) when it was originally staged. While secondary encounters with scenarios as documented in video, photography, writing, etc. are interesting in and of themselves, they are out of the scope of this paper. It is important to note however, that because experiential scenarios have an 'afterlife' and

continue to engage 'secondary audiences' after originally staged, 'what makes Experiential Futures 'tick' doesn't live or die on the basis of what is experienced in the primary encounter (Candy, 246). While a better understanding of the participant experience during experiential scenarios may help us understand why these creations are worth building and sharing, I am not claiming that this will provide a complete picture of its value as a practice.

## 2.5 WHAT I HOPE TO ACHIEVE

Let's take a moment to state the intended outcomes of this project and evaluate whether or not the research questions posed above are well suited for generating these outcomes.

The intended outcomes are as follows:

> I. a descriptive account of participant experiences during experiential scenario encounters. This outcome describes 'what happened' for participants during the experiential scenarios used in this case study. While not as a rule generalizable, a rich description of participant perceptions, emotional responses and the formation of understandings may sensitize designers to the cognitive and emotional states of their participants. Helping designers empathize with their participants may lead to the design of more impactful experiential scenarios.

While identifying the phenomenon under study—the participant experience in experiential scenarios—our research questions were not built to test a predetermined hypothesis. Instead, their aim is to explore, flexibly and in detail, this area of interest.

The intention is firstly to describe the perceptions, emotional states and understandings as formulated by participants rather than prematurely fashioning more general claims. Adopting an *idiographic* approach, we are concerned chiefly with the explication of individual cases, working inductively towards more general claims as we proceed (Smith and Osborne, 56). As such, our research questions are framed broadly and openly; reflecting our desire to capture an account of the phenomenon in detail as it emerges from the data.

> II. an analysis of the participant experience during experiential scenario encounters. This outcome explains 'what happens' for participants during experiential scenarios more generally, while theorizing 'why it happens.' Whether or not experiential scenarios enhance participant engagement with possible futures, or whether the practice is doing something else altogether, must be determined through *empirical analysis*. While in no way a final analysis of what Experiential Futures as a practice is set to accomplish, this paper provides an example for how we might proceed with this conversation going forward.

This outcome raises deeper concerns about the generalizability of our findings. Our *idiographic* approach means that analysis will occur at the level of the participants in the study rather than at the level of groups or populations (Smith and Osborne, 56). As such, we will not be able to make general claims to the tune of, 'person X will respond Y when confronted with Z...” or, 'In experiential scenarios, participants will...,' To make claims of this kind we would require a much larger study involving access to a wide range of experiential scenarios and representational sampling typical of studies in the empiricist tradition. In our case, generalizations of this kind would ignore the specificity of the lone set of experiential scenarios involved in our study, the small sample size

(with its lack of diversity- age, ethnicity, gender, etc.) available to us and the role of the researcher in interpreting this challenging content. A detailed statement of the various limitations accompanying our case study can be found in Appendix B.

However, this is not to say that our idiographic approach is outright opposed to making more general claims. In our study, generalizability will be handled in two ways. The first, is to suggest that subsequent studies conducted with other groups (with equal attention to the specificity of that group and the experiential scenarios involved in the study) will over time, build collectively towards more general claims [11]. The second is to suggest that our findings will be *theoretically* generalizable rather than *empirically* generalizable (Smith and Osborne, 56). In other words, our findings will not be reproducible in the sense that if the case study were set up in the exact same way, participants would produce the exact same accounts of their experience. Rather than concluding with confirmation of a particular hypothesis, our study will conclude in the creation of new theories grounded in observation (see fig. 9). Our conclusions will be generalizable to the extent that "...readers make links between the findings...and their own personal and professional experience, and the claims in the extant literature" (Smith and Osborne, 56)[12]. Thus, in the act of theory building—though this time with

11 This need not always take the form of in-depth and independent research projects like the one conducted for this report. Instead, brief follow-up interviews could be integrated into ongoing practices of staging and discussing experiential scenarios.

12 A corollary of adopting an inductive approach is that the study only admits positive evidence into the record. In other words, what we observe in the case study may be used to support generalizations about 'what is the case,' but not 'what *isn't* the case.' As an idiosyncratic practice in a heterogenous field, it cannot be held to represent experiential scenarios across the board. Yet it would be an oversight to think that a closer look at the participant experience at this

empirical, yet context-specific observations as their basis—the power of our claims can be measured by their ability to shed light on the broader context of Experiential Futures.

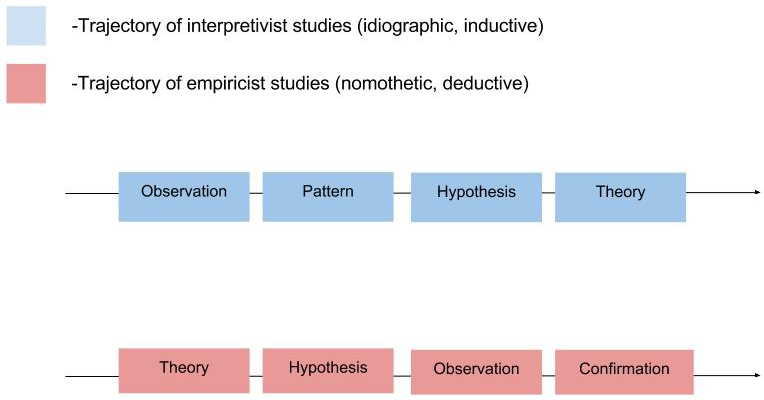


*Figure 9: 'Trajectory of This Study' is contrasted with that of a study in the empiricist tradition.*

III. an identification of aspects of the participant experience underserved in today's experiential scenarios that may be enhanced in subsequent designs. This outcome makes suggestions about 'how it could be' for participants during experiential scenarios. A deep dive into the numerous design variables and potential solutions to the challenges disclosed is out of the scope of this paper. We will however, uncover insights and observe opportunities through conversation with participants and evoke theory to help frame up the design challenge.

particular node would have little bearing on the practice at large.

In our research questions, the phrases, 'made available to participants' and 'what they encounter in experiential scenarios' speak to the inseparability of the participant experience from the particular scenario encountered. Obviously the experience we hope to understand is an experience *of something* and as such there will be need to engage with both the *subject area* (ie. the topic, e.g. mental health, adoption) and the *content* (ie. the designed artifacts, interactions, costumes, etc.) of the particular scenarios encountered by participants. However, these descriptions will be used as pathways to understanding different *types* of experiences and the sense-making processes involved. Through analysis, we will identify patterns in the data and trim away at the specifics of the particular scenarios in order to get a clearer look at the participant experience more generally. It will be part of the interpretive task of the researcher to decide when the particulars of a scenario stand firmly in the way of making a more general claim.

While this research aims to help practitioners create more carefully constructed experiential scenarios, it will not use participant data to directly evaluate what 'worked,' or what design decisions made for a 'good,' or 'quality' experience. Nor will it be used to speak of how best to 'handle' different subject matter in the design of experiential scenarios. Instead, this study will describe what design decisions 'did' or were 'like' for the participants who experienced them, and offer a theoretical basis for why this may have been the case. The shift in focus from the particulars of the design, to the

particulars of the experience, should help designers see a range of design applications at their disposal for creating a desired effect in their practice. The opposite approach which focuses primarily on the design of the experiential scenario itself, tends to produce a limited understanding of *why* a particular decision produced the effect it had on participants. As mentioned earlier, experiential scenarios engage participants *experientially,* or '*as* if' something were happening, and as a result, a '1-to-1' understanding of the relationship between design decisions and participant experiences fail to address the role of participant sense-making in the practice. Thus, to create more carefully constructed experiences—which better fulfill our desired outcomes for these projects—we need to better understand the *range* of experiential scenarios have on our participants.

Of value in these outcomes is an improved self-understanding of what Experiential Futures as a practice is actually doing for participants and a broadening of the design space to enhance engagement with—and the search for—just and viable futures (Candy, 17). In an era marked by rapid and often disruptive change, at stake in Experiential Futures is our ability to act with wisdom and agency in the creation of futures of our choosing, rather than passively adopting those which merely, 'come our way'. As an intervention into the way we think about future possibilities, the time has come to find out what this solution is really offering to participants.

In this section I made a case for the use of empirical research to better understand experiential scenarios as they appear in the accounts of participants. I stated the research questions and evaluated their adequacy in guiding this work towards its intended outcomes. In doing so, I was forced to grapple with the potential generalizability of the findings and set down some methodological assumptions to help steer the research towards useful results. The remainder of this paper will be used to report on a case study conducted at OCAD University in the Winter of 2016. A set of student-led experiential scenarios staged each semester as part of the Strategic Foresight and Innovation MDes program, were used in pursuit of an answer to the above research questions . The following section outlines the design of the case study in detail in the hope that it proves useful to subsequent studies of this kind.

# 3. RESEARCH DESIGN

## 3.1 INTERPRETIVE PHENOMENOLOGICAL ANALYSIS (IPA)

> *"As sense-making never ends (or begins) since it is not constructed, but is always in the process of construction" (Wright, 91).*

This section introduces Interpretative Phenomenological Analysis (IPA) as a methodology and provides a rationale for its application to the research questions in focus. It explores IPA's underlying commitments and assumptions while acknowledging its limitations and strengths as a methodology. This section will also cover the specifics of the case study and the research methods used; explaining recruitment and selection procedures, participant profiles, data collection procedures, and data management and analysis. The aim of this section is to provide context to the field research conducted.

This research used Interpretive Phenomenological Analysis (IPA) as its methodology. IPA is an approach used in psychological qualitative research to, "...explore in detail how participants make sense of their personal and social world, and the main currency for an IPA study is the meanings particular experiences, events and states hold for participants" (Smith and Osborne, 53). To recall our research questions:

*What thoughts and feelings are made available to participants during experiential scenarios?*

*How do participants make sense of what they encounter in experiential scenarios?*

IPA studies have been used in a variety of fields including healthcare, business (organizational psychology) and gender studies to learn about how individuals are perceiving the particular situations they are facing. Such situations can include receiving a diagnosis of life-threatening disease, leading a company through a merger, or transitioning into motherhood. As such, IPA is well suited to exploring how participants make sense of complex and novel experiences (Smith and Osborne, 55). This is because IPA studies are both p*henomenological* and i*nterpretive*.

*IPA* is *phenomenological* because it, "...is concerned with an individual's personal perception or account of an object or event, as opposed to an attempt to produce an objective statement of the object or the event itself" (Smith and Osborne, 53). In the previous chapter we observed that since Experiential Futures is a practice fundamentally involved in the shaping of experience, '...the decisive, interpretive moment occurs at the reception end, rather than the broadcast, end…" (Candy, 253). Typical of IPA, our concern is to better understand the experience from the participant point of view, irrespective of what may have 'really' happened while participants entered a scenario. In other words, the focus is on the *design-as-experienced* rather than the *experience-as-designed*. IPA is well suited to understanding experiences of complexity and novelty because it seeks to understand the *experience*, rather than trying to explain the source of the complexity or novelty itself.

IPA is *interpretive* because, "...the research exercise is a dynamic process with an active role for the researcher in that process...a two-stage interpretation process...is involved. The participants are trying to make sense of their world; the researcher is trying to make sense of the participants trying to make sense of their world" (Smith and Osborne, 53). *IPA's* interpretivist approach acknowledges the significant role played by participant *and* researcher sense-making throughout the duration of the research project (see fig. 10). It acknowledges that in asking participants to tell us about their experiences, we provide them with a unique opportunity to reflect, reinterpret and create new meanings for themselves and the researcher; a fresh round of sense-making is enlivened. As a result, the data we receive from interviews should not be taken at face value as indicative of what the 'raw' experience may have been like for that participant. Instead, what is received is an updated and interview-specific script, capturing that participant's most recent interpretation of their experiences. As researchers, we activate our own interpretive efforts, in an attempt firstly, to understand why we were given the account we were given, and secondly, to glean from the account what the experience might have been like for that participant. In doing so we place ourselves within the analytical frame highlighting the importance of understanding one's own biases and assumptions before engaging in field research of this kind. The introduction to this report explored some of my own ideas about Experiential Futures to help familiarize the reader with the subject matter and my preconceptions about the practice.

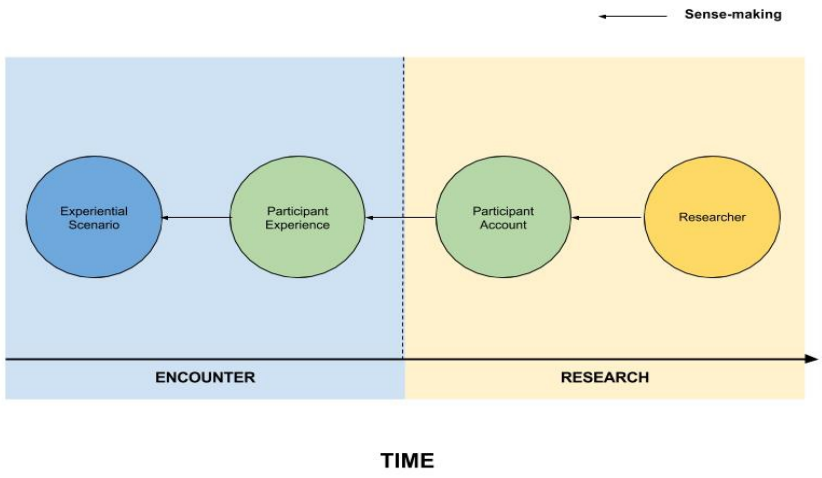


*Figure 10: 'Two Stage Interpretive Process' used in Interpretive Phenomenological Analysis as applied to this study*

IPA's interpretivist approach is particularly well suited to understanding complex and novel experiences because it acknowledges the renewal of sense-making in the act of engaging with the researcher. As observed previously, experiential scenarios are by nature non-propositional. There is never a single conclusion to be had nor a 'correct understanding' to be reached because participants are engaged *experientially*, 'as if' something were happening. Given their interpretive potential and the often strange and challenging environment into which participants are placed, experiential scenarios are comparable to the kinds of complex and novel experiences IPA has effectively explored in the past. IPA provides this project with a solid approach to understanding the experiences of our participants as they encounter an experiential scenario and

continue to make sense of their experience during the duration of the study.

In this chapter, we introduced Interpretative Phenomenological Analysis (IPA) as a methodology, provided a rationale for its application to our research project and explored some of IPA's underlying assumptions and commitments[13]. We are now ready to outline the specifics of the case study and in doing so account for some of its strengths and limitations.

## 3.2 CASE STUDY: "TIME MACHINES"

The case study was centred around a set of experiential scenarios staged yearly at OCAD University as part of the Strategic Foresight & Innovation (SFI) program requirements. Dr. Stuart Candy, Assistant Professor at OCADU and creator for the part of the course, has dubbed these experiential scenarios, 'Time Machines,' because the futures are meant to be depicted "...as if transplanted from a fully realized, coherent, concretely existing alternate (or rather, future) universe" (Candy, 190). By definition, these experiential scenarios were designed such that upon entering a Time Machine, the audience is invited to feel 'as if' they had actually arrived in the future. Earlier in the

13 A wide range of possible methodologies taken from Anthropology, Art, Sociology, Psychology, Design, etc. may have been applied with equal appropriateness to this study given the multi-disciplinary nature of the practice. Phenomenography was considered as a potential candidate but I found that it lacked the rigour of IPA while embracing many of the same premises. While the usefulness of IPA may be gleaned from the findings of this report, I encourage future research to explore the applicability of other methodologies taken from adjacent fields as well.

semester the students were given a subject area—'The Futures of Food'—and already engaged in trend scanning and scenario development. At this stage, each working group of students selected a time horizon (e.g. 2035, 2050, etc.) in which to set their series of four scenarios. In creating Time Machines, the student groups were to draw on one of their written scenarios, to create a twenty-minute long immersive situation for twenty-plus visitors to enter together. The students were free to create any situation they pleased from out of their chosen scenario. To do so, the students used a variety of designed 'stuff' including artifacts, images, interactions, etc. to simulate an experience or 'situation' native to that scenario.

On the two days of the Time Machine presentations, the visitors—comprised primarily of SFI students, a few subject matter experts, the professors and a handful of additional visitors who were invited—travelled around OCADU campus visiting each of the Time Machines in sequence. Immediately after visiting a Time Machine, the student designers led a thirty-to-forty minute 'debrief,' including a Q&A and a strategic conversation based on the experiential scenarios.

In this run of the Foresight Studio, each group selected a different sub-topic bearing on the Futures of Food including, 'Food Security,' 'Future Diets,' and 'What's on the Table.' The boundaries for these complex and diffuse sub-topics were drawn by the students through previous efforts in textual scenario development, during which phase

they also selected a hypothetical 'stakeholder' for whom the project was to be completed. As such, the intended audience for the Time Machines were nominally, the hypothetical advisees for the written scenarios, and not necessarily the student peers who made up the majority on the day of their staging. Yet, knowing that these stakeholders were hypothetical and that the actual participants during the encounter would be their classmates and the professors who would be grading their work, the current iteration of the Time Machine practice is infused with an interesting ambiguity as to whom they are designed to engage. This is  atypical of Experiential Futures practices where the intended audience is usually determined from the outset; whether the general public or the organization for whom the project is commissioned. (A detailed statement of the various limitations accompanying this case study can be found in Appendix B).

## 3.3 THE FUTURES OF FOOD

There were five Time Machines staged in total, but this study focusses on three in particular, all staged on the same day. The following descriptions of the three Time Machines are paraphrased from accounts given by the student designer groups responsible for them. As immersive experiences transposed into written form, these descriptions will necessarily fail to do justice to what it may have been like actually 'being there.' Descriptive accounts of that experience appear below, in the Findings section of this report. The following titles have been added by the author as a 'short-

hand' for easy reference to these Time Machines.

***The Smart Meal Plan***
by Team Future Diets 2035: Vanessa Rementilla, Michael Berman, Komal Faiz, Aday Sami-Orungbe

> "On September 6th 2030, parents from Westbrook Elementary School attended a parent information night regrading The Smart Meal Plan—an integrated approach which includes nutritional profiling, meal planning and surveillance.
>
> During the evening, a 5th grade class facilitator, along with two of the school's registered dietitians introduced how the new program works. Parents were invited to experience the DNA profiling process (see fig. 11) and then offered to sample the new food products under The Smart Meal Plan Program including EntoPops, VeggieTabs, SpringMe water and much more (see fig. 12).
>
> Parents were engaged in a question and answer session after the presentation. To conclude the evening, parents were invited to sign-up for the program at the school website or office.

*Figure 11: 'Apple DNA Extraction':* parents try out the Smart Meal Plan DNA profiling technology

*Figure 12: 'Future Food Products'* including'Veggie Tabs' and 'D3 Mallows'

The Smart Meal Plan integrates nutritional genomics, personalized diet, and a learning feedback device, RIBIT® (see fig. 13). Each student's unique nutritional profile includes a risk analysis of food interactions, allergies, intolerance and sensitivities along with recommendations on optimal foods. These inform their dietary needs which are all customized right in our cafeteria. Through RIBIT®, the student's nutritional intake and physical activity can be monitored remotely.

"Based on a child's nutritional report, a personalized meal plan is created. A wide variety of foods ranging from certified CRISPR enriched-naturals to bioactive infused synthetics will be available to fulfill their unique dietary needs and taste preferences. Each school cafeteria is equipped to create these customized meals and they may also bring in vendors who specialize pre-packaged custom foods."

***Food Extinction Museum***

By Food Security Team: Graciela Guadarrama, Jyotish Sonowal, Kennedy Chiejina, Oktay Kesebi, Raul Valenzuela


*Figure 13: 'Extinct Food Display'* in Food Extinction Museum

*Figure 14: 'Food Extinction Museum Assets'* including security guard, suits and logo.

"...a dark and thought-provoking scenario that was developed to provide a glimpse of how the world could be if humans, corporations and society continue consuming and producing today without being aware of the consequences for tomorrow. The objective of the experiential immersion was to allow client and audience to experience a food history exhibit in a dystopian society in the year 2050.

"Broccoli was the first exhibit and the longest extinct food crop (see fig. 14). The narrative stated that by 2013, more than 95% of broccoli came from numerous valleys in California. However, from 2024 to 2026 drought wrecked the crops of the largest broccoli producers in the state. Alternative water reserves were available to

the highest bidder, in this case, the water-intensive textile industry, which paid large sums to use them. Broccoli farmers were unable to afford these reserves and were out-priced by larger stakeholders. The substantial water requirements for the cultivation of broccoli were a deterrent for farmers who switched to less water-intensive crops. By 2027 there were no large broccoli cultivations left."

"The last exhibit showed a not so pleasant image of a rare powder a mixture called Life-form (see fig. 14). This powder is a composite of extracted nutrients from the few natural plants and grains still available. This powder allows for the creation of any type of food. Once the rate of food extinction started to accelerate, scientists at Cooper Donovan developed Life-form. This product offers countless options when mixed with other nutrients and extracts. For example, when combined with milk, the powder turns into meat and when mixed with water it creates bread. Life-form, which was exclusive to Cooper Donovan, was made to broaden food options in a world where diversity of natural foods was almost non-existent."

***Purity***

By What's On The Table Team: Hala Beisha, Janice De Jong, Donna Klaiman, Roxanne Nicolussi, Jenny Whyte

"It's the year 2026 and you are at the pre-opening exhibit for Purity, a Danish restaurant phenomenon that started a movement. As you enter the gallery you are bombarded with headlines about food contamination and its detrimental consequences. You hear sounds of a concrete jungle and notice that they are coming from a video portraying the dangers of contaminants in food.

*Figure 15: 'Display of Contamination'* plaguing earth in the story-world of Purity.

You follow the wall on your right– covered in images of contaminants (see fig. 16)... Surprisingly, once admitted entry to the gallery space, the mood and tone is quite contradictory. Your Purity experience begins with a warm greeting and instructions to 'purify' your hands. The sounds of singing bowls hit your ears, you smell the slight scent of lemon, your eyes adjust to low light and catch pictures of beautiful frozen landscapes...

'Welcome to Purity, come in and be pure.'

Gongs chime. It's time for an announcement. You are welcomed to the opening exhibition by five ladies. They introduce themselves, explain the dishes in your hands, and express great pride that the movement is coming to Toronto.

'To Purity' they say, 'To Purity!' you repeat in unison.

*Figure 16: 'Instruments of Purity'* used in the ritual food treatment methods endorsed by Purity.

> "Through various rituals, tools, ingestible purifiers and food treatment methods, Purity brought a new perspective on the restaurant experience in 2026 (see fig. 17). The Time Machine took place in a gallery event to celebrate the pre-opening of the Toronto location. By showcasing the different artifacts that Purity has to offer, the event introduced Toronto residents to the Purity movement.
>
> This world showed an increased popularity in pseudoscience fad diets. The intent was to provoke the notion that a society may find it easier to look to the private sector for solutions."

The above descriptions have been offered here to provide context to the practice under focus in this case study. Through the words and pictures of the designers, we now have a basic understanding of what our participants encountered in these experiential scenarios. With a preliminary understanding of the Time Machines as designed, we now turn to the recruitment and selection of research participants for our research.

## 3.4 RECRUITMENT & SELECTION OF PARTICIPANTS

This research project had two major phases:

1. *Designer Interviews* aimed at understanding the designer groups' thinking about the particular decisions they made, as well as how they think their participants engaged with the experiential scenarios they created.

2. *Participant Interviews* focused on the participant experience as visitors to the experiential scenarios. Emphasis during this phase was placed on if and how these participants made sense of this experience, the thoughts and feelings that were made available during the encounter and how their interpretations developed as immersion in the experiential scenarios progressed.

IPA studies typically recruit very small sample sizes because, as stated in the previous section, the aim is to say something *in detail* about perceptions and understandings rather than jumping ahead into claims about a broader population (Smith and Osborne, 55). As such, samples are neither random nor significantly representative. Instead IPA studies typically recruit groups for whom the research question would be significant. In this case study, the research questions would be significant to anyone who had attended the three Time Machines in focus. However, since sense-making is so central to our interests here, I sought to segment the participants based on what

they knew going into the Time Machines; not to *test* individual responses as representatives of a larger group, but simply to include the opportunity for differences to emerge along these lines given the novelty of the experience.

Thus, the Participant Interviews were divided into three groups with the aim of recruiting two people per group:

1. *Foresight Students* were interviewed in fulfillment of both the Designer Interviews component as well as for Participant Interviews because these students had designed their own Time Machines and also visited those of their peers. These students were familiar with Futures Studies and had tried their hand at designing an experiential scenario.

2. *Subject Matter Experts* were interviewed in fulfillment of the Participant Interview component. Subject Matter Experts attended the Time Machines because of their professional interest in food. These participants were knowledgeable about the food industry but were not expected to know anything about Futures Studies.

3. *Naive Participants* were interviewed in fulfillment of the Participant Interview component. Naive Participants were asked to attend the Time Machines by the researcher and knew little or nothing about the food industry, nor Futures Studies.

Since the Foresight Students were enrolled in the course, they would already be present on the staging day. This turned out to be true of the Subject Matter Experts as well, because they had been invited to attend the Time Machines by the professors who believed their input on the topic of 'food,' would be valuable to the students. Both of these groups were recruited for the study via email a few days after the Time Machine encounters were staged. As it turned out, one of the Subject Matter Experts was also an alumna of the SFI program, and was therefore more knowledgeable about Futures Studies than anticipated. Her participation rounded out the study (see table 1).

| | Futures Studies | Food |
|---|---|---|
| Foresight Students | ✔ | X |
| Subject Matter Expert 1 | X | ✔ |
| Subject Matter Expert 2 | ✔ | ✔ |
| Naive Participants | X | X |

*Table 1: 'Recruitment' based on prior knowledge of Futures Studies and Food*

The Naive Participants were recruited in advance with an advertisement shared through the researcher's personal social media platforms, so as it turned out, the two Naive Participants were close friends of the researcher. While in some research designs this could present a problem, in IPA "...there is a wish to try to enter, as far as possible, the psychological and social world of the respondent." In connection to this, a prior personal relationship between participant and researcher may well be expected to

increase their ability to access this domain (Smith and Osborne, 59). Both Naive Participants were screened for background knowledge of Futures Studies as well as of the food industry. (A brief demographic account of all interview participants appears in the 'Findings' section of this paper.)

## 3.5 DATA COLLECTION PROCEDURES

| Chronological Order | Group | Method | Tool | Research Component | Aim |
|---|---|---|---|---|---|
| 1 | Previous SFI Cohort | Reflection Collection | X | Designer Interviews/ Participant Interviews | Sensitization & Script Development |
| 2 | Foresight Students | Semi-Structured Group Interviews | Designer Interview Guide | Designer Interviews/ Participant Interviews | Base Understanding of Time Machines & Research Questions |
| 3 | Subject Matter Experts | Semi-Structured Group Interviews | Participant Interview Guide | Participant Interviews | Research Questions |
| 4 | Naive Participants | Empathy Map & Semi-Structured Group Interviews | Participant Interview Guide | Participant Interviews | Research Questions |

*Table 2: 'Data Collection Procedures'* in order of use with supporting details

At the end of a previous Time Machine project, students had written a short individual reflection on insights gained while transposing a written scenario into an experience and immersing themselves in other groups' experiential scenarios. Via an email sent to the students in this cohort, I was able to collect eight reflections to help sensitize me to the current Foresight Students in the mind-space of having recently completed their own experiential scenarios; an experience I had gone through a year previously as

well. These reflections also informed the creation of guides used while conducting semi-structured interviews with both Designers and Participants.

Typical of IPA studies, the core research method used in this study were semi-structured interviews. Since IPA studies aim to understand how participants perceive and make sense of their experiences, a flexible data collection tool provides the participant with the greatest opportunity to tell their own story. With the aim of exploring participants' accounts of taking part in experiential scenarios, semi-structured interviews encourage respondents to introduce reflections that the investigator may not have anticipated (Smith & Osborne, 59). Semi-structured interviews also allow, "...the researcher and participants to engage in a dialogue whereby initial questions are modified in light of the participant's responses and the investigator is able to probe interesting and important areas which arise" (Smith & Osborne, 57). Using this format, I was free to modify and generate new questions to help participants recall and explore the complex and novel experiences they had had within these Time Machines.

## 3.6 THE INTERVIEWS

The Foresight Students were interviewed in their designer groups using a semi-structured interview; one-hour in duration. The interviews were conducted via video-call and in person. Each of the three groups who staged Time Machines that day were

interviewed. They were first asked to describe their own Time Machines, their intentions for building them, how they were designed and what that process was like. The interview also sought their observations on how visitors had responded to their Time Machine. This part of the interview was meant to provide the researcher with a baseline understanding of the experiential scenarios staged, and what kind of experience the designers had hoped to create. The data gathered at the Designer Interview stage would go on to set the context for the Participant Interviews to come.

Halfway through the Foresight Student interviews, the topic shifted to their experiences as visitors to their peers' Time Machines. This stage of the interview was conducted in fulfillment of the Participant Interviews component of the research. Thus, the Foresight Student interviews played a dual role of filling the researcher in on their Time Machines as designed, as well as exploring their experiences of the other Time Machines staged that day. Participants were asked questions grouped into five areas of interest guided by the research questions (see Appendix C). These areas of interest are: Narrative, Interaction, Emotion, Synthesis, and Judgement. The particular questions within each grouping were intended to become increasingly specific and revealing as they progressed. This was done to provide the participants with maximum opportunity to share in the direction that the interview would take in order to enable interesting, yet unanticipated material to surface throughout the interview.

Subject Matter Experts and Naive Participants were interviewed individually using a semi-structured format one-hour in duration, over video-call and in person. The Participant Interview Guide shares the same five areas of interest as the second half of the Designer Interview Guide, because both explore the experiences that participants had while visiting the Time Machines (see Appendix C). Upon inspection of the interview guides, it may be surprising to find no mention of 'food' whatsoever. This is because conversation about the specific content in the Time Machines was bound to arise inevitably in answers to questions such as, 'What did you do while in the Time Machine,' or, 'Which Time Machine do you have the strongest recollection of?' The omission of this material in our interview guide meant that when participants referenced the topic of food it must have been in some way essential to their recounting of experience they had had within that Time Machine, rather than having this framing element of sense-making 'fed' to them through the researcher's line of questioning. This allowed for differences between the participant experiences and sense-making processes to emerge in accordance with the participants' various levels of subject matter knowledge. Additionally, having less subject matter content in the transcriptions overall meant that the pathways to understanding general *types* of experiences during analysis were less littered with subject-specific material.

Since the Naive Participants were the last to be interviewed, they had the longest interval between the staging of the Time Machines and their recollections being

sought; approximately a month. This meant that some of the thoughts and feelings the research asked them to recall were rather distant in their memories. Naive Participants engaged in an Empathy Mapping exercise (Osterwalder, 2010) to help them reflect on the full sensual range of their experience within the Time Machines and bring some these experiences forward in memory. Empathy Maps (see Appendix D), asked participants to reflect on one particular Time Machine through the lenses of See, Hear, Think & Feel, Say & Do, Pains and Gains. In retrospect, this priming tool may have been a useful exercise for all of the participants in this study because some of the material I hoped to uncover was predominantly pre-reflective or tacit.

## 3.7 DATA MANAGEMENT & ANALYSIS

As is standard practice for IPA, the interviews were tape recorded and transcribed word for word. The transcriptions were printed with large margins on either side of the document. In IPA analysis, "...themes are not selected purely on the basis of the prevalence within the data. Other factors, including the richness of the particular passages that highlight the themes and how the theme helps illuminate other aspects of the account, are also taken into account" (Smith and Osborne, 75). Thus, analysis in this study engaged iteratively in a process of extracting themes from a text and subsequently reinterpreting the other sections of the text with regard to those themes. In doing so, each reading had the opportunity to generate new insights.

In our analysis, the process had two basic steps, both of which involved the researcher engaging in an interpretive relationship with the transcript (Smith and Osborne, 66). First, the left margin of the document was used to take rough notes on the language used and the associations, connections, contradictions, questions etc. made throughout a first reading. Anything that struck the researcher as interesting or significant about what the respondent said was noted. A second reading used the right margin to document emerging themes by title (Smith and Osborne, 68). The titles used were abstracted one level to allow for theoretical connections to be made across accounts while respecting the particularity of the specific account from which it initially came. At this stage, themes began to reoccur throughout the text and were noted using the same theme title (e.g. Path of Discovery, Emotion-in-Thought, etc.). Next, the researcher listed the themes separately and sought connections between them (Smith and Osborne, 70). Some themes were clustered together as a result of their similarities, some were nested as subordinate concepts, and still others were removed for redundancy. After creating a final list of themes, the researcher went back through the transcription to find particular quotations that best performed as evidence. A table was created to help the researcher quickly reference the various themes and their subordinates, along verbatim evidence and a line number to cite the full passage (see Appendix E). At this stage, the researcher went on to the next interview afresh and executed the same steps without importing themes from the previous transcription. Doing so allowed the researcher to dive deeply into individual transcripts to discover

new themes as well as similar themes extending into new territories.

The second stage synthesized the findings extracted from each transcription into a single set or 'master table' of themes and evidences (Smith & Osborne, 75). This involved the identification of similar themes to be clustered or subordinated, and those themes which could be removed due to redundancy. Evidence was preserved from each of the transcriptions where it was instantiated and labelled by participant. Since our sample is non-representative, it made sense to organize the findings in this table by theme (along with those participants who provided the strongest evidence) rather than by participant group. While differences between participant groups may help explain certain divergences in their accounts, our small sample sizes means that this will have limited explanatory power and must be understood alongside the other individual attributes that may have shaped participants' accounts. Figure 17 provides a summary of this process of analysis.

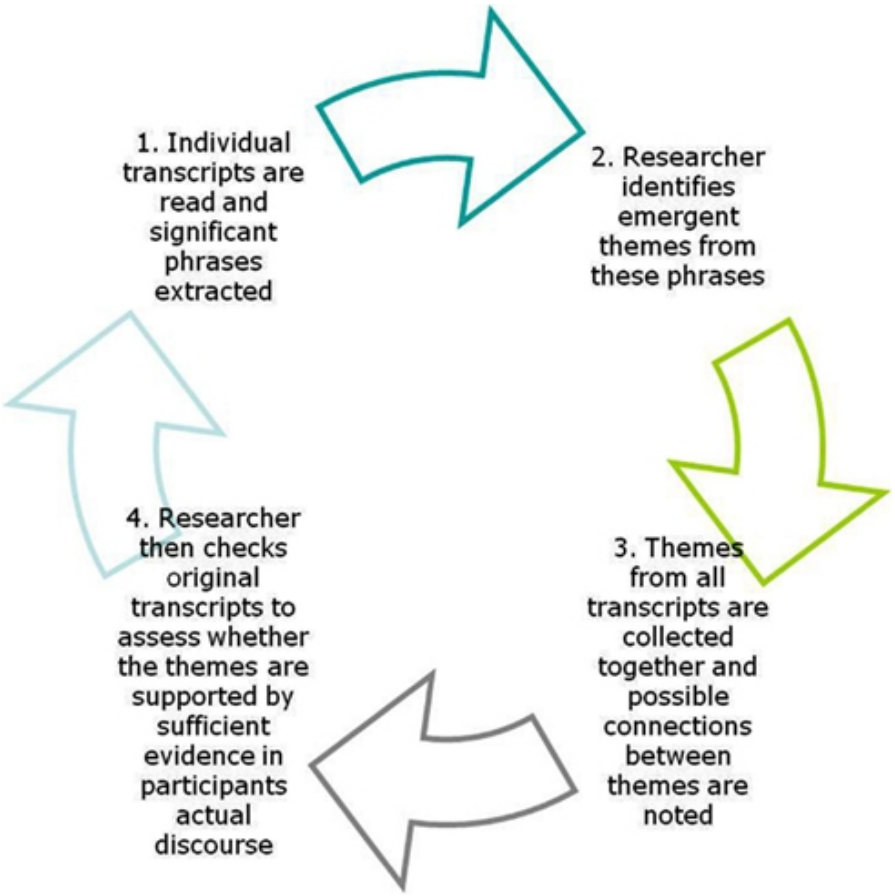


*Figure 17:* 'Analysis in IPA', *Frontiers in Psychology*. 2013. Web. 22 March. 2016.

# 4. FINDINGS

## 4.1 INTRODUCTION TO SECTION

> "One of the interesting values of exploratory study is that the fuller descriptive account that it yields will frequently give an adequate explanation...without the need of invoking any theory or proposing any analytical scheme" (Blumer, 42)

This section offers direct quotations from participant interviews to create a rich descriptive account of the participants' experiences within the Time Machines. The researcher's identification of themes therein will be distinguished from participant quotations used to add colour and texture to the account. While this description may in-itself prove useful as an output, theory will be evoked for the purposes of saying something more general about what happens when participants encounter experiential scenarios. Armed with a fuller picture of the participant experience, this section will also provide suggestions to enhance underserved areas.

## 4.2 A NOTE ON PARTICIPANTS

The segmentation of research participants based on what they knew going into the Time Machines, was done to provide the opportunity for differences in the participant experience to emerge along these lines. A full list of participants, their pseudonyms and supporting demographic information follow (see table 3).

| PSEUDONYM | GROUP | AGE | GENDER | PROFESSION | Country Of Birth | Level Of Education | NOTES |
|---|---|---|---|---|---|---|---|
| **Abby** | Naive Participant | 29 | Female | Ph.D Student | Canada | Masters Degree | Close relationship with researcher |
| **Samuel** | Naive Participant | 27 | Male | Musician | Canada | Masters Degree | Close relationship with researcher |
| **Ariana** | Subject Matter Expert | 45-60 | Female | Food & Culture Professional | Canada | Ph.D | |
| **Talia** | Subject Matter Expert | 47 | Female | Retail Experience Designer | Canada | Masters Degree | Knowledgeable about Futures Studies |
| **Food Security** | Foresight Students | 25-35 | Mixed | Students | Mixed | Undergraduate-Masters | Met with 3/5 group members |
| **Futures Diet** | Foresight Students | 25-35 | Mixed | Students | Mixed | Undergraduate-Masters | Met with 1/4 group members |
| **What's On The Table** | Foresight Students | 25-75 | Female | Students | Mixed | Undergraduate-Masters | Met with 3/5 group members |

*Table 3: 'Participant Demographics'* by participant group

Subject Matter Experts—with their special subject area knowledge—were able to tease out of the experiential scenarios, deeper tensions and further-reaching implications unobserved by the other participants; including the designers. In reference to the food in *The Smart Meal Plan*, Ariana states:

> "The food they made all looked like candy which was sort of problematic for me in terms of like, what could foods look like...it removed the whole culture of dining which every study we can look at shows us, is really important for health"

Compare this account to that of Samuel, a Naive Participant:

> "...I sort of see it like a very obvious way to get children to eat nutritionally correct...It was like, let's just modify all of our food to be healthy while still keeping the general flavour and like sort of trick our kids to eating it"

While Samuel grasped the disingenuous nature of the solution proposed, Ariana had information at her disposal to problematize the solution further. Ariana was eventually able to share this information with the group during the debrief. However, during the Time Machine encounter itself, Ariana was frustrated with the inability to share knowledge she believed would have changed the way Naive Participants were thinking about their surroundings. Subject Matter Experts repeatedly voiced the frustration they felt while witnessing the 'uninformed' behavior and speech of other participants. Yet for Subject Matter Experts, observing the responses of these participants—as a barometer of what those individuals value and assume to be true of the future—may be

just as informative as what the Time Machine itself has to offer them[14].

Data taken from Foresight Students as Time Machine participants were not used in analysis because as it turns out, these participants had a difficult time seeing past their own intentions as designers. Having staged a Time Machine that same day, the Foresight Students engaged with their peers' Time Machines primarily as designed entities; reflecting critically on the decisions they made. While all participant groups reflected at times, on the Time Machines as a designed experience, the homogeneity of the Foresight Students' accounts indicates that they may have had a difficult time stepping out of their role as designers during the interview. This not to say that the *experience* of Foresight Students were entirely different than those of the other participant groups, but simply that they were less able to reflect upon their experience without implicating their role as designers and what they knew about the intentions of their peers. As such, being present within one's own Time Machine and visiting those of others on the same day, may not get designers any closer to understanding how other participants experience Time Machines. Their inability to reflect upon a Time Machine encounter as their audience might, provides additional grounds for the empirical study of participant experiences during experiential scenarios. As such, the following findings emerged from accounts given by the Subject Matter Experts and the

14 This brings to mind an under appreciated use-case for experiential scenarios. Much like focus groups, experiential scenarios, can be used to 'take a reading' of participant perceptions, opinions, beliefs, and attitudes as mobilized in group sense-making. As such, Experiential Scenarios may be staged on behalf of a business or organization to better understand their users.

Naive Participants interviewed in this study. The remainder of this report will be scoped with this selection in mind.

## 4.3 TYPOLOGY OF RESPONSES


*Figure 18: 'Typology of Responses'*: Direct quotations taken from participant accounts sorted by type of responses

*The 'Typology of Responses'* places some of the real examples taken from the participant accounts into categories based on different ways participants responded to the Time Machines *(see fig. 19).* These phrases were used by participants in recounting things said out loud in the Time Machines as well as their own thought processes.

*I. Gut Reactions* are pre-reflective responses made by participants in moments when reacting impulsively to their surroundings.

*II. Design Reflections* are responses that reflect upon the experiential scenario as a designed entity.

*III. Out-of-World Responses* are reflective responses that belong in the conceptual and temporal universe of the present day.

*IV. In-World Responses* are reflective responses that belong in the conceptual and temporal universe of the experiential scenario.

This typology is not tightly bound and by no means absolute. Some responses may be assigned to multiple categories depending on interpretation. However, this framework will allow us to talk intelligibly about the various ways participants engage with that which they encounter in a Time Machine; whether with objects, people or places participants are at all times exhibiting one or more of these types of responses. This framework may also be used to anticipate participant responses to particular design decisions or to help designers identify the desired effect they wish to have on their

participants[15].

## 4.4 ON THE PATH OF DISCOVERY

> "There was a sequence of events in which you are sort of being led to experience...so all of them have like a sequence in which to follow...It was not so much a buffet, right, it was like a three course meal."- Samuel

Upon entering the Time Machines participants reported awareness of the designer's intention to order their experiences as they progressed through the Time Machine. Samuel compared the feeling to walking through a haunted house; an analogy made previously in the literature (Candy, 2010). For Samuel, the Time Machines, like a haunted house, placed him in a strange environment through which he felt he was being 'led.' Samuel describes his journey through *The Smart Meal Plan* Time Machine as follows:

> "Okay so we walked in, sat down at the desk and then there were these sort of four presenters, there was clearly one lead presenter. She explained sort of this program that was government funded. It was designed to create personal nutrition programs for each kid and you would buy a watch, it was like a $50 watch to track the nutritional intake of your child...She went through that, and then there was a computer set up with this little like sort of glowing platform with an apple on it and she was saying okay...so the way to track the DNA was you go up to the table, you bite the apple, you put it down on the platform and then the computer would analyze your DNA and then sort of create a nutritional program for you. And then after they brought out like sort of like genetically modified

15 As the following section will show, there is a sequence to the experience-as-designed. The question of whether or not there is also a sequential pattern to the *responses* of participants (ex. Gut Reaction to In-World Responses, etc.) as an encounter progresses would be an excellent line of thinking to explore in future research. The drawing of a 'Journey Map' of participant responses throughout the duration of an encounter may be a fruitful way to approach this research.

> foods that look like candy but have been unfused with certain things your body needs...And then after that the presentation ended. So you had like a presentation, you interact with the computer, you talk amongst yourselves and these genetically modified foods were brought up and you try samples."

For Samuel, each stage of the experience was distinct because at each stage he was provided additional information to help fill in his understanding of the situation he was placed in. This gradual 'unfolding' of context appears to give participants the feeling of being 'led' through a scenario. At each stage of the experience, Samuel learned more about the nutritional plan proposed for his hypothetical son or daughter and the macro-level changes that may have led to the introduction of this plan. While Time Machines can be more or less structured in how they organize participants in the twenty-minutes of immersion, what Samuel's experience illuminates is that participants may be acutely aware of the provision or suppression of information within the Time Machines, and earmark this in memory. Cast as active participants in a strange world in which they may have to act and speak, it is not surprising that participants actively look for clues to orient themselves in the story-world in which the Time Machine is set. For participants, expectations are continually made and revised with the provision of additional information[16]. It would appear that as participants progress through a Time Machine, a significant portion of their mental activity is engaged in the extraction and

16 This suggests a comparison to Samuel R. Delany's notion of science fiction *Reading Protocols;* whereby sci-fi readers continually revise the complex picture they have of a novel's story-world as it progresses. Delany states, 'A sixty-thousand word novel is one picture corrected fifty-nine thousand, nine hundred and ninety-nine times' (Delany, 5). If 'a picture is worth a thousand words', and lived experience a few thousand more, the process of developing a picture of a story-world in ones mind may be just as revisionary in experiential scenario encounters.

synthesis of new information gained from their experiences. We can call this experience of being gradually admitted into the story-world of a Time Machine being on a 'Path of Discovery'.

The Path of Discovery, can be quite 'narrow' or 'wide' depending on how much information is provided and how explicit or implicitly it is embedded within the Time Machine. This is neither 'good' nor 'bad' but can be used to produce various affects for participants. In *The Smart Meal Plan* there was ambiguity around whether or not the personalized diet system introduced was going to reach lower-income neighbourhoods as well as the wealthier ones. Subject Matter Expert, Talia states:

> "I believe, and someone might give you a different answer, that the team that was putting it on didn't think that it was a 'class' scenario. But the audience believed that it was. And it was interesting because I think the team was looking at it as a world. And I think that the audience was looking at it as individuals."

In this case, information that was *not* made available to participants within the Time Machine, created room for interesting and previously unthought of moral implications to arise for the group. Envisioning that the personalized lunches would only be accessible to the wealthy in this world, concerns around who gets left out of this scenario were given a voice. In *Food Extinction Museum*, information was deliberately withheld to evoke the totalitarian atmosphere native to that future and in doing so the Time Machine provided few 'footholds' for participants along the path of discovery.

> "You feel like you could be in the basement thirty two floors under

> some sort of like hi-tech secret agency...the sense of environment is totally stripped...I could totally understand how some thought 'Oh we're on like some sort of like planet, on mars or some sort of like, base on the moon...you would imagine because all the agriculture was dead, maybe we had to leave planet earth as a result."- Samuel

In this instance, a lack of information generated a variety of interpretations for that Time Machine's setting. Participants knew that a number of fruits and vegetables we have today had become extinct due to opposing corporate interests, but the extent to which the Earth had been decimated in the process was left unclear. Additionally, the technological capabilities in this distant future were left out of the picture making it ambivalent as to whether there was the possibility of mass space travel. In combination with the Time Machines' cold and dark environment, a number of participants felt as if they were in an entirely different setting than others in the group. The upshot is that through the debriefs, participants were able to flesh out additional and perhaps, unexplored possibilities for that scenario. However, the extent to which this was a 'shared experience' may have been lessened by the openness of its interpretive terrain.

Participants reported that the further into the future a Time Machine went, the more important it was for the Time Machine to lead them along a path to discovering how that future came into existence. In the *Food Extinction Museum*, Abby appreciated the short video presentations explaining how particular foods on exhibit had become extinct and wondered if her experience would have been the same without them:

> "I wonder if the museum one hadn't been explicit would I have been able to make that connection because it is so far into the future that it's good that they connected the dots for us....they connected it to current events like the drought in California. It just made it and enriched the whole experience knowing that...Whereas the one in the school didn't even need to. It's so feasible like this could happen tomorrow, and it wouldn't shock me if that happens tomorrow!"

It would seem from Abby's report that a Time Machine's plausibility is tied to participants' ability to see one or more paths of action from the present day to the situation depicted in the encounter. If this is the case, then a Time Machine set further into the future—usually sporting more pronounced change—will need to provide participants with more information about how those changes occurred over time. As such, the path of discovery that a Time Machine set in the distant future leads its participants down, may choose to direct participant attention more closely to 'historic' material than a Time Machine set in the near future.

## 4.5 TECHNOLOGY AS 'ANCHOR' & 'LINE'

The relatively linear path of today's technological advancements, helped participants draw lines from the present to the futures portrayed in the Time Machines. In the last one hundred years we have witnessed unprecedented technological change and are now able to recognize patterns of adoption and diffusion of technological innovations. Most people have lived long enough to observe technologies used initially in niche markets gain mass appeal and wide-spread adoption. According to the participants, future technologies enhance a Time Machine's plausibility by 'anchoring' that future to

a timeline starting at the present and extending out into the projected growth of that particular technology. In *The Smart Meal Plan*, a presenter simply swiped her hand through the air to change the slide of the presentation. Abby states:

> "It was very believable that that's how presentations would be in the future...I mean we are all getting used to the swiping mechanism."

Abby could confidently locate this technology in the near future because she extrapolates from current day touch-screen technologies. Similarly for Samuel, the extraction of DNA through the biting of an apple, strengthened his belief in the plausibility of the scenario. However, for Samuel, it was not so much the existence of the same or similar technology in use today but the same interests that these technologies serve that he uses to extrapolate:

> "...based on my intuitive understanding of biotechnology, I imagine like we're moving into a place where doing simple tests like that are getting less invasive; you want to make it as easy and quick as possible. So it made sense that like, okay, just take a bite of an apple and boom, they get your DNA."

Unlike social, environmental or political change, technology does not always need an explanation for why it is there; a precedent appears to suffice. However, this is not to say that all extrapolations of modern day technologies will necessarily increase plausibility in the design of a Time Machine. Part of their power to create plausibility lies, as in design fiction, in that they appear to work. Again, in reference to the swipe technology Abby states: "I mean the technology exists now because they're using it." Of course *The Smart Meal Plan* group did not invent controller-less swipe technology;

at the time of writing this had not yet been created. The group instead used a second group member to activate the control as the presenter moved her hand through the air. What this demonstrates is that the appearance of working technology—whether or not the participant truly believes it to be working in the present day—creates a profound sense of plausibility because as a physical manifestation of proposed change it imposes its reality on the situation. This enhances the immersive quality of the scenario, encouraging participants to consider the situation 'as if' it were really happening. In Samuel's report, while technology reinforced plausibility and helped create an immersive environment, it also distracted him from some of the more substantial concerns in the Time Machines. In encountering the swipe technology, Samuel describes his and Abby's reaction:

> "We definitely looked at each other and talked about it for a good thirty, forty seconds. So I can definitely say that like I didn't pay attention for almost a minute as a result of that one detail. 'Thats not real right? Like that's not possible yet?'"

In its enchanting presence, the appearance of new and working technology can pull participants out of their current day and transport them with ease into a future environment. However, when the scenario is not inherently enabled or bound to that technology, we run the risk of distracting participants from the more substantive aspects of the experiences. In this Time Machine, swipe technologies had little bearing on the deeper concerns of DNA-enabled educational diet plans. Instead, the swipe technology set the participants off on a series of *Design Reflections*. Samuel identifies this tension below:

> "If I want to believe this is 2030, do I really think its the same technology as we have now? It's sort of a catch 22. Its like I want it to be as realistic as 2030 can be, but it's too new to me, so now I would be very aware of it"

An additional effect of technological invention on Participants is that it can sometimes bite off more than it intends to chew. The technology created to enable a particular story to be told in the Time Machine often has enormous consequences beyond the particular context of that Time Machine. Talia describes her thought process as she encountered the DNA scanning technology in *The Smart Meal Plan*:

> "The idea that somebody could take that kind of information from you moving forward through a medium. Think about using things like that...and somebody finds an apple phone in your terrace...and knows everything about you. They know your age, what kind of diseases you have, etc."

For Talia, the existence of this technology brought to mind its consequences in other domains as well. In this case, theft of a personal device with DNA data stored on it would be a very real possibility in this world even through it was not directly explored in this Time Machine about school meal plans. It appears that because of our familiarity with the broad diffusion of technological innovation, the appearance of technology in Time Machines has a tendency to open up larger explorations across domains. Thus, as an immersive experience with many moving parts, experiential scenarios and the technology depicted therein, can be used as a point of departure for

the exploration of a variety of themes; both intended and central, or unintended and tangental.

## 4.6 EXPECTATIONS & LITERACY

Each of the participants new to experiential scenarios referenced a greater intellectualization of the second and third Time Machines following their first experience that day. Bear in mind that all these participants knew going in was that they were going to in some way, 'visit future worlds.' The participants all acknowledged a heightened emotional and embodied experience in the first Time Machine relative to the next two. While this might be explained by the particular Time Machine encountered first, the participants seem to agree that it had more to do with the development of expectations for what the following encounters were going to be like. Ariana states:

> "I had a privileged place right, because it was the first Time Machine. So after I went to that Time Machine my experiences with the other Time Machines might have been like, coloured. It was just heightened because it was the first one."

For Ariana, the first Time Machine had 'heightened' impact as she had not yet established the categories for thinking about these experiences intellectually. Instead Ariana, was left to intuit a wide range of elements of the practice and its framing for herself. These may have included what she was to say and do while inside of the Time Machine, where she was to look for direction and what she was supposed to

understand or get out of the experience, etc. Thinking about this first Time Machine and how different it may have been, Samuel states:

> "The experience with the Time Machine could have been like people saying [with arms spread out indicating the room around him] 'THIS...IS...AN EXPERIENCE!' You know? Like that could have been a possibility. That could have been the way these things played out"

For Samuel and the others, the first Time Machine helped establish a framework for what these experiences would look like going forward and in doing so created expectations for the following Time Machines. The above quote demonstrates Samuels relief in discovering that the Time Machine experience would not be painfully spelled out for the audience. Samuel explains what his expectations were like going into the following Time Machine with the first as a precedent:

> "Okay so I'm walking...I'm going to walk into a room. That's the first thing. I'm walking into an enclosed space. I'm going to be guided through this. Someone's going to tell me what to do, going to tell me like things, information. There's going to be details about the room that are going to inform me about the world. There's going to be things to interact with. There's going to be a lot of implicit information."

As simple and broad as these expectations are they provided the participants with a foundation upon which to consider the Time Machines intellectually. In the following two, having noted the constraints inherent to staging a Time Machine, the participants were able to engage in *Design Reflections*. This awareness could begin to compete for their attention and draw them out of the embodied mindset exemplified by *Gut*

*Reactions*. However, the establishment of expectations may have also sharpened the participants' attention to meaningful parts of the scenario which may have been missed in the first instance. In reference to how the first Time Machine may have changed his subsequent experiences Samuel states:

> "It made me more thoughtful about it...I also got a sense of what other people are thinking about while participating in it...And the kind of things they enjoyed about it...during the debrief I got a sense of like other people's perspectives of this experience and so from that I got a better understanding about the frame."

Samuel's account demonstrates how one may learn rather quickly how others are engaging with a Time Machine and may sharpen their attention to what that community of practice believes to 'count' in the experience. This is particularly easy to glean when a Time Machine is debriefed because some of these assumptions are explicitly or implicitly voiced. An important implication is that debriefs not only shape group opinion about the preferability of a particular scenario, but also affect participant behavior and perception going into the next.

## 4.7 WORLDS MADE STRANGE

> "It was powerful because it all makes sense, like it theoretically lined up to be the future but it was also like so far from the present day"- Abby

Earlier on we used the term 'Path of Discovery' to signify the way in which our

participants engaged in an investigation and interpretation of new information gathered within experiential scenarios. What is 'discovered' along this path is a clearer picture of the story-world that the experiential scenario is set in. This picture may be revised throughout the encounter when each subsequent revision clarifies new corners of that story-world. The participant accounts indicate that along with each clarification comes a powerful and difficult to articulate feeling, in realizing that one has traversed a temporal break from one's own reality. Abby states:

> "The way the room was set up was there were like 4 or 5 items on display and that was it, the rest of the room there was nothing else going on. So like all you could do when it was like for maybe 5 minutes just look around and all you see is this like pillar with broccoli on it because the light shining on it and it just looked kind of like I don't know, regal and but why do we have like broccoli so common in our own experiences so why in this world is broccoli put on display in such a way!?"

For Abby, the placement of broccoli—a vegetable so commonplace in 2016—on a pedestal in a museum context, acted as a curious indicator that she was no longer inhabiting the same world she woke up to on the morning of the encounter; its norms had greatly shifted. In order to engage with the scenario, she had to acknowledge and embrace this temporal and conceptual break from her present day reality:

> "I mean I started making an assumption like this is the world where maybe broccoli no longer exists and that's why we are looking at it from behind glass casing. So yah I sort of gathered."

However, in Abby's own words, the reality she was asked to enter was 'theoretically lined up to be the future.' In other words, the world she entered used factual

information to bolster its own plausibility in her mind, in-spite of its strangeness. Samuel reiterates this sentiment when he states, "The environment is something somewhat familiar but definitely altered." In the *Food Extinction Museum*, the audience is of course familiar with broccoli just as well as they are familiar with the experience of visiting a museum. However, when these two are placed together alongside a number of details reinforcing the earnestness of the situation—its 'as if' quality—the audience is asked to recognize the existence of a story-world that is quite different to their own world, but not impossibly so. Abby states:

> "I think like walking into that room that first one that was surprising just seeing vegetables, fruits and vegetables that we take for granted put on display in that way is surprising."

At another point, Abby describes how the naming of a particular brand familiar to her in the present day as being responsible for the extinction of these crops initially made her laugh—a *Gut Reaction*—but later contributed to the plausibility of the scenario:

> "Well it make me chuckle because why point fingers at Levi's it was kind of funny they'd actually chosen a company but it maybe it did make it more, I don't know, It made it more believable"

This comment is indicative of experiential scenarios' capacity to combine factual material with fiction to make the future familiar and the present strange. Abby's laugh stems from the juxtaposition of Levi's in the Time Machine with the relatively benevolent company that it is today. It initially seemed absurd to think that this organization could be responsible for the extinction of broccoli. However, as the Time

Machine recounted the various motivations and decisions which made up the history of that world, Abby came to believe in its plausibility[17]. In doing so, the Time Machine exposed the extent to which our current reality is mutable and ultimately constructed. It made the present day 'strange' because like the future it portrayed, it became just one of many alternatives.

This powerful feeling of displacement as one's everyday reality is relativized in and through immersion in a fictitious environment may be the central experience of experiential scenarios[18]. When asked if he would support telling people about the story-world they are about to visit in advance Samuel stated:

> "I think it's like if you tell people about it, the expectation...you're taking away your intuitive response with information. And I think by giving people information, that intuition, that first like walking into that room has been diminished...I think that first intuitive response to this world and what's going on, imprints on you more than like the cognitive intellectual part of like picking the world apart. I think that is what makes these experiences of the future so effective"

What this points to is that this feeling of displacement is felt to a larger degree when the discovery of a Time Machine's 'otherworldliness' unfolds itself to participants in the

17 This is exemplary of Jim Dator's second 'Law of the Future.' Dator states, 'Any useful idea about the futures should at first appear to be ridiculous' (Dator, 1996). Without the *initial* appearance of ridiculousness an idea about the future may prove insufficiently challenging. Yet as Candy's, 'Art of the Double Take' suggests, deeper reflection of this idea should give way to recognition of its plausibility (Candy, 202).

18 This is reminiscent of Darko Suvin's famous concept of *cognitive estrangement* which he claims to be the fundamental, and genre defining, experience of science-fiction. According to Suvin, '...the factual reporting of fictions' within internally consistent worlds has the effect of psychically,"estranging" us from our usual assumptions about reality (Suvin, 375). This experience may be equally central—and perhaps even more powerfully felt—within the immersive environments created by experiential scenarios.

encounter. In other words, the more implicit, yet accessible we can make the information indicating to participants their inhabitance within a unique story-world, the greater their feeling of estrangement will be. The challenge is to include evidence of the alternative story-world along the Path of Discovery without drawing participants out of the immersion.

## 4.8 THINKING-THROUGH-FEELING

The above framework leaves out an entire mode of engagement that sits lower down in our consciousness but which is nonetheless key to understanding the participant experience during experiential scenarios. Participants gather and interpret information while in Time Machines at the level of affect; through mood and feeling. Participants sense the environment they are put in and respond to it viscerally. The *Gut Reactions* recorded here capture fragments of a powerful experience at this register. At times, the information interpreted at this level can shape the way participants make sense of their surroundings and in particular, the story-world they find themselves in. This is particularly true of scenarios where story-world information is unavailable at other levels of consciousness. Samuel explains why some people may have thought that the *Food Extinction Museum* was set in Space:

> "Some people felt like it wasn't even on planet earth, it felt like we were in some sort of space module like very, very cold and very dark, like you know?"

Samuel references the Time Machine's low temperature and dim lighting to explain how participants arrived at an interpretation of the Time Machine's setting. In lieu of other clues as to their whereabouts, Samuel believes these individuals intuited their location via the mood that was created within the Time Machine. However, the affective mode is not to be understood simply as a default frame that gets relied upon when more explicit information is lacking; it runs concurrently throughout the participant experience in all Time Machines. For Samuel the same sensorial content was restated in his own personal plot-summary of  that Time Machine:

> "the second one was very dystopian, it was like we've lost all of these crops now, we have to create these like, really it was in a very cold dark environment, and we were talking about how like through capitalist agriculture and like corporate control we've lost all these crops like banana's, coffee  and now they've created these like synthetic foods and this is like the only option for food"

Take another example taken from Ariana's play-by-play account of the *Purity* Time Machine. For Ariana, the precise colours of the girls' hair or their clothing is significant to her account only insofar as it culminates in the way she felt in their presence:

> "They were all more or less blonde[19] with ponytails and kind of white clothing I think. Their clothing, it wasn't all white uniform but it was all very similar... I felt, "oh I don't belong in here like i'm too dirty to be here"

19 It is interesting to note that all of their hair colours were actually black. What this may demonstrate is that while particular details fade from memory, the experience at the level of affect remains in tact. This bodes well for using Experiential Futures means of creating *enduring* memories of possibles futures. Further research may investigate what participants remember about an experiential scenario at increasing time intervals after the encounter.

Throughout the interviews, participants would continually intersperse emotive, on-the-ground details into what they intended to be objective high-level descriptions of a Time Machine. What this tells us is that participant interpretations of Time Machines are inextricably linked to information intuited through the act of being there. Participants walk away from Time Machines with understandings bound to that particular environment within which they were first thought[20]. This is made most obvious in the number of instances where participants recounted the Time Machines in the present-tense:

> "So I'm a parent being invited to the school for I guess some sort of parent teacher night, but it's not so much like kids being talked about, you're not talking about the students, you talk about the nutrition program that's being introduced by the government"- Samuel

Here Samuel 'climbs back inside' the Time Machine in order to think through what it was that he encountered and how he made sense of it originally. He attempts to psychically revisit the Time Machine, recreating that experience for himself in my presence. While Time Machines prove to be particularly good at extending participant thinking into the built environment, the antithesis to this phenomenon is that the thoughts had while immersed in these environment are sometimes difficult to recall

20 This is true of other, non-futures experiences as well. However, it is particularly significant to Time Machine encounters because participants visit a unique story-world with significant temporal and conceptual distance from one's present reality. Once participants have returned from that story-world, there may be little in the present to help them recall what was previously thought at that level.

when no longer there[21]. As our participants demonstrate, the affective range of experiences had during a Time Machine seem to surface rather sporadically throughout their accounts to help fill out their recollections. In a particularly telling exchange with Samuel, he was asked at what stage he had come to the conclusion that he disapproved of the meal plan proposed in *The Smart Meal Plan*:

> "[It was] definitely before we left the universe, however, I probably wouldn't have been able to effectively communicate it right away"

For Samuel, the meal plan was decidedly problematic for him prior to leaving the Time Machine. However, it would not be until some time afterwards that he was able to articulate why. The Time Machine had engaged him on an affective level and in doing so bound his understanding to what he had experienced viscerally in that place and time. As such, Time Machines provide a rich environment through which judgements may be formed, at least in part, at the level of affect. As designers, this suggests the need to carefully consider which information should be included under the hood of the Time Machine—where mood and feeling can supplement thought—and which information is best suited for the more reflective environment of the debrief.

## 4.9 THINKING-THROUGH-DOING

> "It allows you to actually become a participant when you cannot be a

21 This interpretation is indebted to work done in cognitive psychology and philosophy on Extended-Mind whose central thesis is that the environment can play an active role in driving cognition. For further reading consider Bateson,1972; Clark and Chalmers, 1998; Dunagan, 2014; and Rowlands, 2010.

> participant in just a story being told to you...you get much stronger feelings because again you're in the act of doing versus the act of just passively listening or seeing something"- Talia

The extension of participant thinking into their immediate environment is perhaps most pronounced when participants are engaged in activity within the Time Machines. In these moments, the thoughts and feelings that participants had were different in kind and strength. In reference to her experience biting into the apple which would extract her DNA in the *The Smart Meal Plan*, Abby states:

> "Seeing the program running and like feeling what my child is going to go through and like this is what it'll be like to make this whole thing more believable, but I guess it was sort of adding to like, 'this is maybe kind of scary' like, 'now all my information is in this computer,' and 'who are these people who run this computer program?'...Actually seeing my data be transferred from the apple into the computer like the way they had the program calculating your nutritional whatever that was. And then 'where's it going?' 'What is this data going to be used for?'"

For Abby, biting into the apple and seeing how effortlessly her DNA could be collected using this technology increased the plausibility of that scenario because it ceased to be a story with static props; turning instead into a working environment with which she could interact. Biting into the apple also contributed to Abby's ability to empathize with her hypothetical child for whom she was cast into the role of parent. The ability to consider this technology as a 'real' thing and to 'feel' what it would be like to use, elicited *In-World Responses* from Abby; enhancing her ability to think through its consequences with greater richness and clarity. Of course, we all know that any action has a set of possible reactions, but what Abby's account demonstrates is

that when these consequences are considered concretely through action—engaging the affective register of experience—they are given greater moral weight and complexity.

In Samuel's case, the imminent consequences of biting into the apple gave him reason to pause before completing the task, "Yeah you're picking up the apple and like, 'Okay...' Whereas if you didn't do that, you weren't faced with that immediacy." For Samuel, the looming consequences of disclosing his DNA to a company he knew little about came to a point in the moment when Samuel picked up the apple to take a bite. Samuel hesitated in his decision because the 'immediacy' of having the apple presently in hand, made the consequences of his action more thinkable. It would seem then that Time Machines provide participants with material to think and feel with in the act of doing.

An interesting corollary of this phenomenon is that some of the actions taken by participants in Time Machines are part of incomplete thought processes. In other words, if during an experiential scenario participants think-through-doing, their actions are rarely the result of any significant amount of forethought; they rarely think *before* they act. This appears to be particularly true of Time Machines where the immersive period is a brief twenty minutes, and the distant time horizons create an environment strange to the present day. Apart from the Time Machine set in the familiar setting of a

school classroom, Samuel reported feeling uncomfortable in both of the others:

> "The other two environments were not familiar and I did not feel comfortable in. I was in a hazmat suit in one and I was holding food in another that looked weird!"

He describes eating 'weird' food in the What's On The Table Time Machine:

> "There was like a ritual around eating. We all drank the Kool-Aid you know, at the same time like it was definitely an environment I did not feel comfortable in"

In spite of his discomfort , Samuel participated in a collective ritual involving the consumption of food that he was clearly uninterested in eating. For Samuel, the act of eating demonstrates the desire to further intuit and learn from his environment by the acting within it. Eating 'weird' food in this instance, is the result of a desire on Samuel's part to think-through-doing rather than having considered the implications of his actions ahead of time and decided his path accordingly. He states:

> "I definitely felt more uncomfortable about this food than the school food. But I also on a personal level disagree with the values of this sort of establishment unlike I did with the school. The school, sure I had issues with it but I was more on board with grading and really good nutritional programs for kids, rather than like a bunch of rich people eating really hygienic, expensive food, you know?"

Whether Samuel had arrived at this opinion prior to the food consumption ritual is of course hard to determine. However, given the strong impression that participation in the ritual left on him, it is fair to assume that this troubling experience was formative in the judgement expressed above. What this means is that Time Machine participants

may often act in the pursuit of learning, whether from their environment or peers; as part of ongoing thought processes rather than as purposeful actions performed in earnest. In this sense, participants engage in *prototyping interactions* through which they explore the thoughts and feelings that these actions give rise to. This behavior has significant consequences for the participant experience when we consider it in its socio-political dimension in the following chapter.

## 4.10 HALL OF MIRRORS

> "It gives you the opportunity to be part of a community...even if you are just sitting beside somebody else, you are still part of a group. Whereas when you are reading or seeing an image, you are an individual"- Talia

As immersive experiences designed without an invisible, 'fourth wall' for the audience to hide behind, participants are implicitly 'cast' into roles upon entering a Time Machine. However, these roles are often quite flexible and are usually created partly as a means of justifying why there are so many people in that room all at once. The three Time Machines in this case study cast participants as 'parents at teacher night', 'museum goers', and as 'taste-makers attending the launch of a new product line'[22]. Abby states:

22 The opportunity to create different experiences for different participants, to break participants into groups to act collectively or to assign characters for participant to role-play, is territory designers may consider exploring. The socio-political nature of the Time Machine experience explicated in this section will help explain why these strategies may be useful.

> "Just by being present in the room you'd become part of the scene"

As such, the behavior of other participants in embodying that role is as much a part of what is experienced as any of the designed artifacts or actors working 'behind the scenes' to convey that world. The accounts of participants in this study demonstrate how the behavior of their peers contributed greatly to their sense-making across all of the modes of engagement previously discussed. As a result, we observe how the meanings made in Time Machines are handled in and through social interaction[23]. Every action or interaction within a Time Machine becomes a performance of competing meanings.

The influence of social interaction on participant sense-making begins at the level of perception. Participants indicate to themselves, and to one another, the things that are noteworthy in their field of perception. Referring to his interactions with Abbey throughout the Time Machines, Samuel states:

> "She would point something out that I didn't see...or vice versa. We would sort of like, show each other the world"

Directing one another to various parts of the Time Machine calls out particular objects—

23 This interpretation is greatly indebted to the Social Interactionist perspective as outlined in the work of Herbert Blumer. As a microsociological perspective, Social Interactionism helps explain the nature of everyday human social interaction on a small scale, face-to-face. According to Blumer, "people act toward things based on the meaning those things have for them, and these meanings are derived from social interaction and modified through interpretation" (Blumer, 2). Social Interactionism may provide an excellent meta-theory for understanding participant behavior and sense-making processes during experiential scenarios.

whether physical objects, people, institutions, activities, etc.—as significant. These objects are given entry into the arena of competing meanings. This is particularly true of objects with little precedent in the lives of participants because their meanings are constructed more or less from scratch. During Ariana's first Time Machine encounter (staged on the day prior to the three described in this study), she followed the lead of the students in appreciation of signs lining the sidewalk leading up to the Time Machine:

> "Well there were just posters and pictures about what was coming, what was happening inside. And I don't know that I would have known to start looking already, it was only because I saw them kind of...going from post to post, so I kind of did the same thing. It just had all the trappings of a government sign. And I didn't care to look at it because I did not think it was relevant"

Upon indicating to one another what is relevant in the experience, Participants open up interpretive opportunities between individuals where meaning can be constructed socially. Participants act towards their interlocutors with regard to the thing in question and in doing so select, check, modify and transform its meanings in light of the situation they are placed in. This is seen most pervasively in the participant's accounts of their *Gut Reactions*. In recounting his experience of entering the *Food Extinction Museum*, Samuel includes some of the reactions he witnessed from his peers:

> "You get to a place in this bigger room and there's these four stands with food on them. With like a glass case. And there was like two bananas in one. There was like broccoli and coffee beans and there was this other thing some people said looked like cat vomit, some people said 'actual shit' and this was like the future food"

The inclusion of other people's G*ut Reactions* in his recollection of the Time Machine speaks to the degree to which it helped him define the situation he was placed in. His first impression of the 'Future Foods' arose out of the social interactions he had with others while in the Time Machine. In these assertions, Samuel's peers influence the behaviors of others within the Time Machine. Social interactions within experiential scenarios create and revise meanings for participants in order to guide individual and collective action. In the following account, Abby makes an O*ut-Of-World Response* to the food she is given in *Purity*:

> "I think Samuel and I were out of character talking to each other a lot....it was like 'Are you eating that?', 'Are you going to eat it?' 'Tell me if you're going to eat it." and he said, 'Okay I'm going to eat it!"

In this interaction, Abby takes into account what her companion is about to do, and directs her own conduct accordingly. Samuel's decision to eat the food is a performance of the meaning he attributes to it. This can influence how others understand that object and formulate action towards it. In the face of Samuel's decision, others may revise their plan of action, compare it, intensify it, diminish it or abandon it entirely. Thus, participants act towards the things they encounter in Time Machines partly on the basis of the meanings those things have for them, within a social context where those meanings are perpetually changing.

## 4.11 STIR THE POT BEFORE POURING OUT THE SOUP

At one point during *The Smart Meal Plan*, participants were given the opportunity to

express their opinions as *In-World Responses* within the Time Machine. This took the form of a parent Q&A within *The Smart Meal Plan* Time Machine. At this point, participants were able to be rather explicit about the opinions they had formed and the judgements they had made thus far. As might be expected, the Q&A had a powerful effect on the meaning of the experience going forward. Abby recounts listening to the opinions of mothers in the room and how that changed her perspective:

> "Hearing the moms talk about it made the whole question more like, in my own mind it was easier to see both sides whereas before I heard from other people, I had my own opinions formed without even considering the other side."

For Abby, this interaction helped broaden her thinking about the dietary plan and whether or not she believed the scenario to be preferable. It provided her with a window into how others had interpreted the experience so far, and the meanings particular objects had for them. While the Q&A helped people broaden their thinking it also created significant convergences of opinion amongst participants. Ariana explains how once a powerful perspective was voiced, people would start to converge around it:

> "So that was kind of a revelation to me to think that there could be even one person who would think this was a good idea, that this was a terrific idea and he really did. And then it turned out that once he made that, it opened the space up, it turned out that a few other people, also parents, thought this would be a great idea"

For Ariana, hearing other peoples' responses to what they encountered in the Time

Machine was just as revelatory, if not more so, than what she had herself experienced up until that point. Ariana was shocked to observe the opinions in the room converge around what she believed to be an unorthodox perspective. Talia recounts the same phenomenon and labels it 'group think':

> "It's definitely one of those situations where the 'group think' starts to happen until somebody who was an advocate for food...a food safety, food development...someone with an outside force...turned the tables...As soon as she started to be negative then a negative light was cast on the framework"

The Q&A offers us a particularly explicit example of how Time Machines provide an arena for the interplay of competing meanings and judgments carried out in social interaction. Whether ideas diverge on a personal level or converge as a group largely depends on the Time Machine in question, the duration of the conversation and the participants involved. Samuel states, "I think the Q&A in the world really worked because it got everyone to sort of digest this idea together." Puns aside, this notion of 'digesting the idea together' is aptly put. Time Machines place groups in strange environments where social interaction can determine the interplay and fate of meanings. A future world is thus socialized.

Given what we asserted previously about the embedding of participant interpretation in the environment in which they first arise, it may prove useful for designers to find ways- like the Q&A- of encouraging participants to voice their opinions *while still in* the Time Machine. Providing participants with a platform to respond explicitly to the

substantive elements of the Time Machine—while still dialed into its affective dimensions—may be a powerful recipe for group sense-making. It may provide participants with the additional benefit of being able to 'try on,' or enact freshly acquired meanings throughout the remainder of the Time Machine.

## 4.12 WHOSE LINE IS IT ANYWAY?

The meanings constructed during Time Machines are particularly volatile because unlike most situations where people interact with one another, participants do not have a firm understanding in advance of how to act in this situation nor how others will act towards them. This is true for a number of reasons all pertaining to ambiguity in the role and motivations of participants immersed in experiential scenarios.

Participant behavior is sometimes motivated by a desire to 'fully experience' a Time Machine. During Samuel's account of *Purity*, he explains how in spite of being in great moral disagreement with the concept, he decided to take their 'body-cleansing' pills with the intent of enhancing his immersion in that story-world, "So I was like 'screw this shit'...I ate it anyway because I wanted to like, fully immerse myself in that sort of environment." For Samuel, the desire to get the most out of his experience was motivation enough for him to swallow the pill. A different participant might look elsewhere to 'fully experience' the Time Machine but the motivation to make the most of the experience would remain the same.

Meanwhile, other participants are motivated by what they think 'being a good participant' means to the designers of the Time Machine. Ariana recounts reluctantly eating food in *Purity*, "There was an interesting sort of Jello-looking food that had gold leaf on them and you were intended to eat them and I didn't want to. But I didn't want them to be offended that I didn't eat them." In this case, eating the food the designers had cooked for the Time Machine clearly factored into what Ariana felt 'being a good participant' would mean to them. While this typically involves embracing the role one has been given upon entering the Time Machine, it could—depending on the designer—involve challenging that role and even the integrity of the scenario.

Other participants are motivated to 'play along' with the Time Machine. These participants either embrace the role they were cast into or otherwise create a new role within the story-world of the Time Machine. Participants who 'play along' typically exhibit *In-World Responses*; words and actions that belong within the conceptual and temporal universe of the Time Machine. However, since the story-worlds depicted in Time Machines are '...somewhat familiar but definitely altered,' participants are cast into uncanny situations in which it may be unclear to them, whether or how they are expected to speak and act. In more familiar situations, it may be perfectly clear to participants what is expected of them, and in those situations which are profoundly fantastical, one may feel that behavioral expectations have been relinquished

altogether. However, given the dual nature of Time Machines—their familiarity to, and divergence from the present—participants are cognizant of there being a *range* of behaviors acceptable to the situation in which they find themselves. This may include the 'native' ways of interacting with the actors, other participants and the artifacts. In Abby's account of the *Food Extinction Museum* she states, "I wasn't super clear on what my relationship with coffee would be within this world. Like do I know coffee? Or is this just a world where there's never been coffee?" As a result, Abby progressed through the Time Machine cautiously, learning as she went along what was expected of her in that story-world. Since participants arrive at their own interpretation of what conduct as a contemporary of that world might look like, participants end up adopting various models of behavior when 'playing along' in a Time Machine.

Abby was also surprised to discover participants who during the Q&A in *The Smart Meal Plan*, explored their role as parents in that story-world. According to Abby they said things like, "Well my child does this" or like, 'We like to do this'...I just like didn't know to do that. I didn't know I could interact with it in that way." For Abby it was surprising to witness participants who had begun developing the role they had been given into characters. How participants interpret and portray those roles within the strange and novel context of the Time Machine, is a significant sense-making activity in-and-of-itself[24]. What thoughts and feelings are made available to role-playing

24 Since the behavior of other participants is as much a part of the Time Machine experience as any of the artifacts, 'playing along' may also help nurture the immerse quality of the experience

participants and the various affordances that may be built into an experiential scenario to support this, is an interesting topic for further study.

Time Machine participants may also be motivated by a desire to reject their placement within a story-world and 'play against' it. When participants exhibit *Out-of-World Responses* it tends to create politically charged moments because their actions and words usually run at odds with the underlying values and assumptions current in the scenario. Returning to Abby's description of the *Food Extinction Museum*, she was shocked to hear participants asking a security guard where they were supposed to buy their coffee in this story-world. Abby states:

> "If we lived in the world where we had to go to a museum to see coffee and learn about coffee then why would there be this hysteria around like, oh where am I going to get my coffee from. I guess in that way it...[broke-the-universe[25]]... but in another way it made the experience in the Time Machine more fulfilling because of the way the guy was responding to it allowed his character to flourish"

Abby points out that the questions posed by these participants were *Out-of-World Responses*; they belonged to the conceptual and temporal universe of the present day. Moments like these become highly politicized because the values and assumptions underlying the two distinct time horizons briefly clash[26]. In Abby's account the security

for everyone participating.

25 The researcher offered this term (Candy, 2010) to Abby as she was struggling to articulate her thoughts.

26 One may assume that if too many participants engage *Out-of-World* too frequently, it may do damage to the immersive quality of the experience. Likewise, participants who wish only to engage *In-World* may miss out on the opportunities to provoke new thoughts and feelings through the juxtaposition value-laden worlds.

guard responded to these challenging questions by quickly shutting them down with phrases like, 'that is not relevant.' Thus, questions posed *Out-of-World* to the security guard helped reinforce the suppression of information within that story-world and in doing so made the situation more contentious and even frustrating for some.

By now it should be clear that the intentions behind participant behavior during Time Machines may be more diverse than the real life situations they simulate. As such, it is not always easy for participants to tell what motivates the actions of their peers. This may contribute to a crossing of signals, whereby a participant directs his own conduct in terms of what he wrongly reads to be the beliefs enacted by others[27]. For example, a person within a Time Machine may appear to be in support of a particular technological innovation and even eager about it, when in fact they may simply be trying to make the most of their Time Machine experience. Alternatively, in Samuel's account of the Q&A in *The Smart Meal Plan*, he describes an interesting altercation:

> "There were a few moments where people were like a little aggressive. I think they were being so as parents, they were like 'I'm gonna play the parent'. And some people were like not totally recognizing that this is the character that participants were playing. And so...there was this confirmation from the person talking, 'no, I'm asking this in character!"

In this instance, a participant 'playing along' with the scenario felt the need to call attention to her intentions, presumably in order to preserve the good-will of her peers

27 This is not to say that participants typically do only what others are doing, but that given the strange world they are thrust into, the meanings which arise through social interaction may weigh heavily in their decision making.

or to get others to 'play along' with her. However, in the space created by this ambiguity, she was able to provoke a great deal of opposition—the content of which appears to have been beneficial to the larger conversation—which may not have been the case had her motivations been perceivable from the start. Thus, the broad range of possible motivations underlying participant interaction, creates a challenging social environment in which peoples' true beliefs and intentions are not necessarily available to their fellow participants. Contrasting intentions can push participant interaction into new territories yielding previously unexplored thoughts and feelings. Given the volatility of this social environment, the meanings constructed through social interaction may prove particularly conducive to change throughout the experience.

## 4.13 TO TAKE THE PILLS OR NOT?

One particular example is worth recounting in full. In *Purity*, participants were served a charcoal pill with the claim that it would cleanse their bodies of all impurities. As attendees of a high profile product launch, one would expect that most of the people invited would already be trusting consumers. However, many of the Time Machine participants refused the pill because its packaging included a warning not to take the pill if one had recently taken other medication. Abby describes her experience trying to get the hosts to disclose to her what the pills were actually made of in the present day:

> "They gave us these charcoal pills and told us they were charcoal

> pills that were intended to like cleanse your body or whatever. So I was like, are these actually charcoal? And they said yes, these will cleanse your body. 'Like but this is a black pill your telling me to take'. 'Like can we just be straight for a second?' 'Like what am I going to be ingesting here? I didn't take it because I didn't trust it...I wasn't getting a straight answer"

The designer team had put this warning on the package because it had been on the box of charcoal pills they had purchased from the pharmacy. They felt it was their responsibility to relay this information on to the participants visiting their Time Machine. However, once in the Time Machine a statement such as 'Yes, these are charcoal pills' or 'Precisely, you shouldn't take this pill if you have taken other medicine in the last twenty-four hours,' while intended to communicate what those pills were in actuality made of—*Out-of-World*—were easily written off as *In-World Responses* preserving the immersiveness of the Time Machine. Interestingly, for a Time Machine whose central concern was the exploration of pseudoscientific health-food claims, this had the effect of creating a great deal of genuine mistrust from participants. For a moment, participant anxieties around the pressures to ingest something untrustworthy shifted from 'as if' to 'is.' Both Abby's and Ariana's accounts confirm this interpretation:

> "I would have reacted the same way had that been real. I mean, what's in the pill? Like I don't trust it"- Abby

> "Almost none of us took that pill. It was a capsule I think. Like i'm generally not a pill popper. I guess in the future, I'm also not a pill popper but i'm also super not a pill popper of a pill that has no label, that somebody just gives me. Like that would just to me, be the most absurd and stupid thing you could possibly do, right?"- Ariana

What this points to is that once in a Time Machine, the lines between *Out-of-World* and *In-World Responses* are easily blurred. When they are, an experience can quickly shift from simulatory to real from the perspective of participants. Time Machine designers can use this to push social interaction into unique and sometimes baffling territories, where challenging and unexpected meanings may arise.

# 5. CONCLUSIONS & IMPLICATIONS

## 5.1 INTRODUCTION TO SECTION

The previous section offered direct quotations from participant interviews to create a rich descriptive account of the participants' experiences within the Time Machines. It also provided theory to explain more generally what happens for participants during experiential scenarios while highlighting a number of aspects of the experience that could be enhanced in designs to come. This final section will begin by summarizing these findings in order to create a clearer apprehension of their meaning and significance to the field. It will suggest some of the ways that various parties may use and build upon these findings. We will then consider the actual contribution this research has made to some of the larger concerns at stake in the practice and in doing so, suggest opportunities for future research.

## 5.2 SUMMARY OF FINDINGS BY CHAPTER

*4.2*

Subject Matter Experts brought their expert knowledge into play during the debriefs but felt frustrated by their inability to share this knowledge during the encounter itself. To create a more satisfying experience for Subject Matter Experts, designers may provide opportunities for the exchange of knowledge within an experiential scenario by placing Subject Matter Experts in more significant roles.

Subject Matter Experts appeared to derive great value from what they observed in the responses of the other participants. Much like focus groups, experiential scenarios, may used to 'take a reading' of participant perceptions, opinions, beliefs, and attitudes as mobilized in group sense-making. As such, designers may stage Experiential Scenarios on behalf of a business or organization to help them better understand their users and their expectations for the future.

The Foresight Students had difficulty separating their experiences of the experiential scenario from the intentions of the designers who had staged them. This reinforces our central assertion that to avoid designer solipsism and create more carefully constructed experiential scenarios, we need to better understand the participant experience.

*4.3*

The 'Typology of Responses' is offered as a framework to capture types of participant responses—evidenced in thought or speech—to what they encounter in an experiential scenario. This framework can be used to organize research findings or to anticipate participant responses to particular design decisions. It may also provide designers with a canvass to help explore the desired  they wish to have on their participants. Further research is needed to better understand the various benefits each quadrant has on the greater goal of enhancing participant engagement with possible futures. Might there

be one type of response that provides the greatest benefit to participant thinking? Or perhaps there is sequence of responses into which we hope to lead participants during an experiential scenario encounter?

*4.4*

The gradual unfolding of story-world information appears to give participants the feeling of being 'led' through a scenario. The withholding of story-world information can be used to create interesting conceptual and moral ambiguities; a wider range of interpretive potentials. Further research may seek to understand how participant interpretations *progress* throughout the duration of an encounter. Early participant interpretations (which are subsequently revised through the encounter) may prove equally provocative to participant thinking as the 'official' scenario which gets fleshed out during the debrief.

Plausibility appears to be tied to the participant ability to see a possible line-of-action from the present to the scenario depicted. For this reason, experiential scenarios with more distant time horizons may consider making the historical information included therein more explicit.

*4.5*

Technology helps participants establish a timeline from the present day, while

asserting its realism through sheer physicality. However, technology may also distract participants from the more substantive themes present in a scenario and encourage consideration of that technology's impact beyond the domain in focus. As a result, I would encourage designers to think critically about these trade-offs when deciding which future technologies to include in an experiential scenario.

*4.6*

Participants who have never encountered an experiential scenario before quickly learn its parameters throughout their first experience. During subsequent experiential scenarios, participants report diminished emotional engagement and greater intellectualization of the encounter. This may contribute to a rise in D*esign Reflections,* but also sharper identification of meaning-laden elements of the scenario. Given these trade-offs, designers should think carefully about staging a set of experiential scenarios in sequence and the desired affect they wish to have—from completely emotional to entirely intellectual—on their participants. In the Time Machine context, staging the experiential scenarios in sequence allowed the students to engage with sharper focus as designers; the format enabled easy comparison between the Time Machines as designed entities. This may not be a desirable outcome when designing for other types of audiences.

*4.7*

Participants report a powerful feeling of displacement when a scenario's temporal and conceptual distance from the present day is perceived. Participants may feel estranged from their present day reality, seeing it as just one among many possible constructions. This helps clarify what I believe to be the *central* experience of an experiential scenario encounter; an experience of estrangement through which the practice derives its' rhetorical force. Designers new to the field may use this to clarify their intentions and be more deliberately about the experience they hope to create. Since explicit references to the altered temporal and conceptual universe within an experiential scenario may diminish this feeling of displacement; designers should carefully consider how they encode story-world information without disrupting the immersive quality of the encounter.

*4.8*

Participants intuit and make sense of experiential scenarios, in part, at the level of affect; through mood and feeling. The experience intuited at this register appears to be easier for participants to recall than more analytical components of the experience. This may be the result of no longer inhabiting the environment within which those meanings first arose. Without the environmental stimulus, higher-level cognitions may be more difficult to recall. Providing participants with 'souvenirs' to take back with them to the present, may help them reproduce the state of mind they were in during the

scenario.

However, this calls for a larger consideration of what makes it into an experiential scenario, to be attended to with a heady dose off affect, and what is best left for reflection afterwards.  Further research may explore which 'touch points' of a future world—as concretized in the experiential scenario—create the greatest opportunity for meaningful consideration of a scenario's themes.

*4.9*

Participants intuit and make sense of experiential scenarios, in part, when they engage in activity. In these moments, the affective register is powerful engaged. These experiences may impress upon participants with greater richness, clarity and moral depth. Participants act within experiential scenarios as part of an ongoing sense-making process rather than to achieve a specific result. Knowing this, designers may provide participants with the opportunity to enact values they don't otherwise share. Broadening the well of experiences participants can draw from- whether positive or negative- may encourage a more measured assessment of a scenario.

*4.10*

The behavior of other participants within an experiential scenario may be as much a part of the experience as any of the artifacts or actors therein. In social interaction, participants indicate to one another what is of significance, influencing sense-making

at the level of perception. The meanings given to objects within an experiential scenario are constructed socially and continually revised through interaction. Participants signal their intention to act—and how their peers should act—via the meanings they attribute to objects in the encounter. In doing so, every action or interaction within a Time Machine becomes a performance of competing meanings. Designers may provide participants with props, roles, characters, situations, decisions etc. to enhance the creation of meaning through social interaction. Affording participants with opportunities to engage their peers along with what they encounter in an experiential scenario, puts *collective* sense-making front and center. This may improve our chances of provoking collective action once the encounter has ended.

*4.11*

When participants are given the opportunity to share their beliefs explicitly with one another it tends to broaden their thinking. If given enough time, it may also lead to the formation of group opinions. Since participants make sense of experiential scenarios, in part, at the level of affect, providing ways for participants to voice their opinions *while still in* an experiential scenario may enrich the quality of this exchange. Further research may examine to what extent participants 'try on' these fresh meanings throughout the remainder of an encounter.

*4.12*

People approach participating in experiential scenarios in a variety of ways. This means that the intentions behind participant behavior are more diverse than the real life situations they simulate. Contrasting approaches to participation can push social interaction into unique and sometimes baffling territories, where unexpected meanings may arise. The understandings thus produced are subject to frequent revision as interactions compound throughout the encounter.

## 5.3 LET'S DEVELOP CHARACTER

Since the behavior of other participants within experiential scenarios may be as much a part of the experience as any of the artifacts, a more robust use of character-play may encourage a wider range of interpretive potentials. Providing groups of participants with different material to engage with, or pre-assigning characters for participants to play, may help diversify the participant experience within an experiential scenario. While in character, participants may experience different thoughts and feelings, engage in different kinds of activities, and discover alternative motivations for actions with than story-world. Participants would be encouraged to perceive their experiences from a particular perspective within that story-world, rather than as a loosely cast passer-by. This may be enriching to the socio-political dimension of the experiential scenario because participants can get to know the other characters in terms of what that story-world might mean to them. Greater care to facilitate the divergence and

convergence of perspectives within an experiential scenario may help expand the range of possible interpretations participants derive from the encounter.

## 5.4 OFF THE SHELF BUT STILL TICKING

IPA made us recognize that by asking participants to tell us about their experiences within Time Machines, we provided them with a unique opportunity to reflect, reinterpret and create new meanings of their experiences. While this had bearing on how we conducted our research, it also has epistemological consequences for how we conceptualize the impact of experiential scenarios. This was best exemplified by the significant role debriefs appear to have played in modifying participant accounts in this study. We now see how a Time Machine's contribution to participant thinking ripples out far beyond the twenty-minute encounter; it extends into the debrief and then into the conversations participants have with their peers, the photos they share online, and maybe even their use of the encounter as a mnemonic for particular concepts or ideas. While the pursuit to better understand participant sense-making *during* experiential scenarios may prove useful, it may be equally as important to understand how participant thinking *develops* after the encounter has ended. This is particularly important when experiential scenarios are staged in the context of *strategic planning* because the determination of 'what to do next' occurs only after an experiential scenario has been staged; during the debrief and beyond[28]. Instead of seeking

28 Future research might explore the influence and lifespan of experiential scenario encounters within organizations and social groups. We need to better understand how memories and

pathways back into the earlier cognitions of participants, future research might explore how debriefs augment and contribute to the extension of participant sense-making. The relationship between the kind of experiences we create for participants during experiential scenarios and those participants' ability to engage in strategic conversations afterwards, is of central importance for a practice aimed at enhancing engagement with possible futures.

## 5.5 EXCAVATING THE FUTURES

One variable that appears to figure largely into an experiential scenario's usefulness for strategic conversation, is to what extent participants are able to reconstruct an experiential scenarios story-world. At stake here is the ability to use experiential scenarios as a springboard for exploring the preferability of a given future and the identification of the strategies or tactics one might use to resist or expedite it. It seems that without enough of the right information about an experiential scenario, participants may be left without the needed ingredients to adequately think and discuss what should come next.

Participants reported being left with incomplete pictures of story-worlds and their histories in some of the Time Machines in the case study. According to these

shared experience in these encounters flow into broader discourse. Measuring what is remembered about the experience and especially the conclusions participants draw from those experiences, months later, may prove just as significant—and perhaps more profound—than what the experience was like during the encounter itself.

participants, many of the debriefs were spent ensuring that participants 'got the world right'; their questions had more to do with clarifying their mental picture of the change depicted rather than exploring the *implications* of that change. Samuel explains how leaving a Time Machine without a rich picture of its story-world might have endangered his ability to engage with it strategically if the debrief had not been there to fill in gaps in his understanding:

> "It's like, okay, there's a profit, cool, but I don't understand the context of where it's coming from or what caused it. I don't really know how to start thinking about the solution because...the experiences are emotional and experiential at first. Then, after that experience, you are left with a lot of things to think about. So if you don't have like enough information, to start developing ideas and thoughts then it's a very *shallow* experience"

This is a troubling statement when we recall that experiential scenarios are thought to manipulate the human preference for the immediate and tangible, to *deepen* engagement with—and the search for—just and viable futures (Candy, 17). As a Naive Participant, Samuel was not equipped, neither through life experience nor the experiential scenario, with the information necessary for using the encounter as a springboard for strategic thinking. What this points to is an inescapable tension designers of experiential scenarios must continually recon with between the necessary depth and *breadth* of information included within an experiential scenario, and the background knowledge of the audience for whom it is staged.

We can contrast this with more 'conventional' foresight practices which use written

scenarios as the central tool for exploring futures (Ogilvy and Shwartz, 2004), (Van der Heijden, n.d.). While failing to engage us at an affective level, written scenarios can be much more explicit, widely-reaching and highly detailed in their characterization of what has changed in a scenario[29]. This may mean that it is better suited for engaging an audience with different levels of expertise in the subject matter. In the OCADU context, the Time Machines were staged as a just one component of a larger strategic foresight project; strategies were explored during the debrief but also developed and tested afterwards using written scenarios. In this way, students could benefit from the relative merits of both scenario building techniques. However, the question of what specific role experiential scenarios can, and should play in the larger strategic conversation needs further clarification in future research. Must a debrief always follow an experiential scenario encounter if it is to aid participants in thinking through paths of action? Might the very purpose of a debrief be to clarify the story-word of an experiential scenario? Or are there better tools at our disposal for this? One thing is for sure: if an experiential scenario is ever to stand alone – which they typically do in *guerrilla futures* practices- the question of what (and how much) story-world information makes strategic or action oriented engagement with an experiential scenario possible, is a question worth exploring in future research. A hypothesis: knowing the history of a story-world as well as the causal links which maintain it, may

29 This is not as easily achieved in Experiential Futures for a number of reasons but perhaps most significantly because in selecting the places, people, things, etc. used to concretize a story-world in an experiential scenario, we reduce the breadth of content at our disposal to help evoke change at higher-levels.

help participants identify present-day leverage points should they decide to resist, alter or encourage the arrival of that future.

## 5.6 EXPERIENTIAL SCENARIO EVALUATION

In many ways, the methodological considerations made in the second and third section of this paper may lay out some of the groundwork for experiential scenario evaluations. While the intention of this case study has been to learn something more broadly about the practice, our approach to the qualitative study of participant experiences within Time Machines may be used to help evaluate the 'impact' or 'success' of a particular scenario. While the aim of an evaluation would presumably vary along with the aims of staging that experiential scenario, the use of IPA to engage participants about the meaning their experiences had for them may prove widely applicable. Our participant segmentation may also be instructive to future experiential scenario evaluations. Feedback from Subject Matter Experts would help evaluators determine the strategic merit of an experiential scenario. Meanwhile, comparing what the designers intended to achieve with what participants report having experienced during an encounter may provide a baseline for determining the 'success' of an experiential scenario. Thus, the methodology outlined in this study may provide suitable grounding for a qualitative portion of an experiential scenario evaluation procedure.

## 5.7 KNOWLEDGE TRANSFER

As a practice grown rapidly in recent years, a more detailed look at what experiential scenarios do for participants is not only necessary but also timely for the field in general. The case study presented above suggests a fruitful model for learning more about the participant experience and what makes this practice 'tick.' We have learnt a great deal about the Time Machine practice, and *some* of these findings may be prove generalizable to other practices around the world. Subsequent studies centred around other Experiential Futures practices may over time, help us build collectively towards a clearer picture of the participant experience more generally. It is for this reason that this report calls for the widespread *explication* and *dissemination* of participant accounts of experiential scenarios. For a more detailed look at how to envision the practice of Experiential Futures operating at large with the invent of what we are proposing here, please see Appendix A. In acknowledgment of the fact that practitioners may not always have time to conduct a separate study about their participant experiences, future research is needed to determine how the research conducted here might be done at a scale appropriate for integration into existing Experiential Futures practices. Though semi-structured interviews proved fruitful as a method for exploring participant experiences during experiential scenarios, other methods including video-ethnography, cognitive walkthroughs, and in particular, generative research methods such as 'make tools,' or 'storyboarding' may prove economical for integration into existing Experiential Futures practices. The use of these

research methods may provide participants with additional sense-making opportunities through which to enhance their engagement with possible futures.

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# 7. APPENDIX

## APPENDIX A: MODEL FOR KNOWLEDGE TRANSFER

Given the ever increasing diversity in how these scenarios are produced—their context, aims, outcomes and methods used—this paper has called for a collective effort to be made by practitioners and commentators alike, to seek out and share their participants' accounts with the broader community. As such, it is important to detail how we envision the practice of Experiential Futures operating at large with the introduction of more thorough studies of participants during experiential scenario encounters.

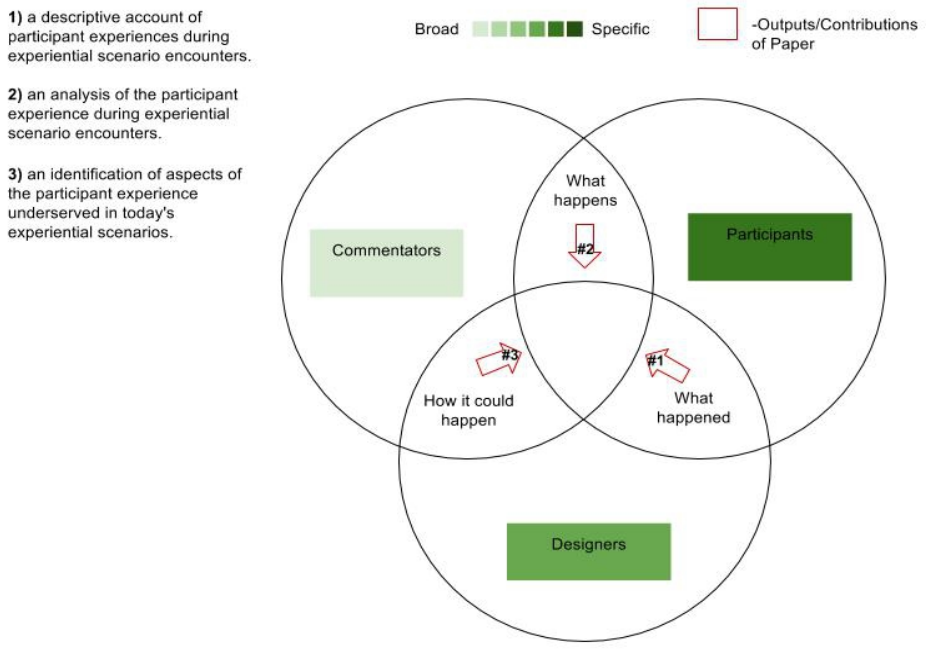



*Figure 19: 'Knowledge Transfer' between participants, designers and commentators within the Experiential Futures community*

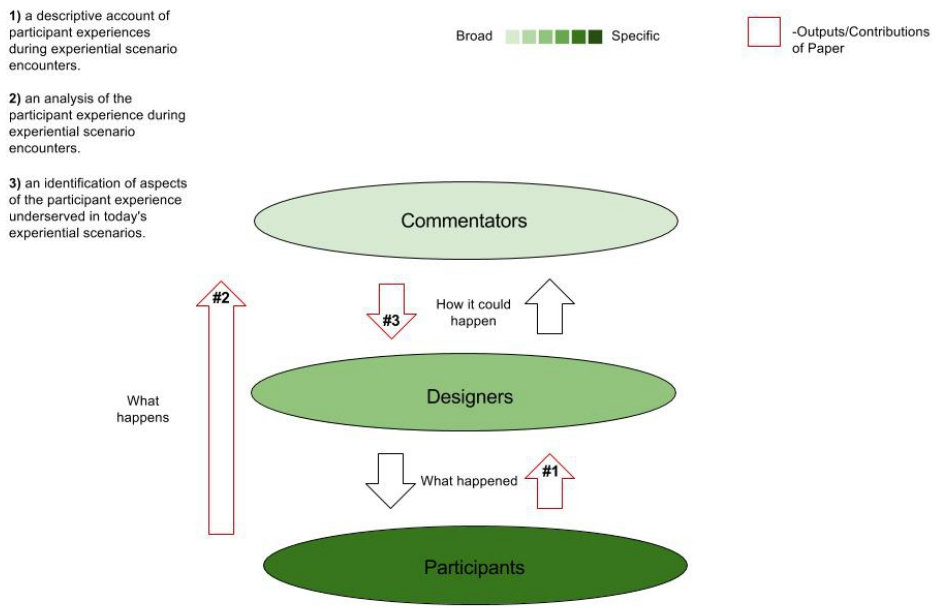



*Figure 20: 'Knowledge Transfer Side Profile' between participants, designers and commentators within the Experiential Futures community*

The above model depicts the transfer of knowledge between participants, designers and commentators within the Experiential Futures community with the introduction of participant feedback acquired from the field (see fig. 21, 22). In its ideal state, what the participants who had these experience talk about, would be the same as what the commentators claim the practice is doing, and what the designers set out to achieve. The same would be true if read in the reverse order, because so long as there is adequate participant feedback, commentary and design would align in service of it. In order to make this model a reality, this paper calls for greater involvement by

commentators and designers alike, in the *explication* and *dissemination* of participant experiences during experiential scenarios.

For commentators, descriptive accounts of 'what happened' in a participant experience may help generate new ideas grounded in real participant data. With better documentation of the participant experience, explanations of 'what happens' generally during experiential scenarios, as well as recommendations concerning 'what could happen' if designed accordingly, could be based on observations made from the field. The more often a theory is instantiated in the feedback of participants across practices, the more confidently we could lean on its explanatory force. Participant accounts may provide commentators with reason to readjust their expectations of what the practice is set to achieve, what qualifies as a success condition for an experiential scenario encounter and even which adjacent fields of study may be relevant to the field.

To create more carefully constructed experiences—which better fulfill the desired outcomes for these projects—designers need to better understand the range of experiential scenarios can have on participants. A more rigorous understanding of 'what happens' generally for participants during experiential scenarios may prove useful for designers who typically rely on iteration to determine what's working. This may prove particularly useful to new practitioners who do not have a wealth of

experience to work with when first designing an experiential scenario. An understanding of the participant experience in general, may ease the design process with the provision of certain well-known facts. Ideally, this would encourage practitioners to experiment more widely in less well-trod design spaces (ie. character-play).

Finally, a richer conversation with participants about their experiences may also reveal new opportunities for designers. Once identified, aspects of the participant experience underserved in today's experiential scenarios, may be enhanced, altered or avoided in subsequent designs. As mentioned earlier, a shift in focus from the particulars of the design, to the particulars of the experience, should help designers see a broader range of design applications at their disposal for creating a desired affect in participants. As such, designers would benefit a great deal from a closer look at the participant experience when searching for new opportunities in the design of experiential scenarios.

## APPENDIX B: Limitations of the Case Study

Let's take a moment to acknowledge some of the limitations that accompany using the Time Machine practice as a case study. Since the students stage Time Machines as part of their course work, there are a number of commitments—some theoretical and some practical—particular to this practice which as a researcher, I was not in a position to alter. Rather than viewing these commitments as variables escaping our control in an experiment, our approach is instead to appreciate them as part of the particular phenomenon under study. The following is a short list of Time Machine commitments used to articulate the specificity of this case study in light of our topic of investigation:

-the encounter was not to exceed 20-minutes in duration.
-the Time Machine was to be staged according to a brief given to the students by the professors.
-participants were exposed to three Time Machines which they visited in sequence.
-participants entered the Time Machines with others or on their own; this was not coordinated.
-participants were not given roles or characters to play prior to entering the Time Machines.
-the Time Machines were designed for Subject Matter Experts as well as their fellow students and the professors who would be marking them.
-the majority of the participants were colleagues of the designers running a given Time Machine.

Now, let's take a moment to acknowledge some of the limitations that accompany the research as designed. To begin, our emphasis on semi-structured interviews—while typically well suited to discerning what people say and think—fail to unearth the more *tacit* categories of knowledge including, what people know but don't know that they know and how they feel (Sanders and Stappers, 53). While great conversations can turn

tacit knowledge into explicit knowledge, it often requires a great deal of effort on behalf of the participant, as well as strong rapport with the interviewer. This appears to be problematic for a research project aimed at understanding the thoughts and feelings that arise within an experiential scenario encounter because some of this knowledge is presumably tacit. In any case, we proceeded with semi-structured interviews, recruiting whenever possible, participants with whom the researcher had already built a rapport, in hope of surfacing some of the more tacit knowledge contained in their memory. An alternative may have been to use generative research methods—such as the Empathy Mapping exercises we used to help prime the Naive Participants—more pervasively throughout the study. Additionally, first-hand observations during the experiential scenarios might have helped supplement the participant reports and designer observations.

# APPENDIX C- Semi-Structured Interview Guides

## Designer Interview Script

Warm Up/Intro
Tell me a little bit about yourselves!
What are your professional backgrounds? What interests you?

What was it like making a Time Machine?
What did you enjoy about it?
What was most challenging?

Time Machine Recap

Who was your client organization? What was your topic?
Tell me about the scenarios you wrote? How were they built? Can they be summarized?
How did you arrive on the situation you used in your Time Machine?
Can you please describe your Time Machine?
*Probes:* what were the main things that changed in this future? what were some of the surprising new things in this world that don't exist today? to what extent does your Time Machine represent/stand in for the larger world that it's set in?

Moral Orientation

Do you think this was a probable future scenario? Why (not)?
Do you think this was a preferable futures scenario? Why (not)?

General Reflection

What worked well?
What didn't work at all?

Designer Observations

Tell me about the reactions you got from your participants.

What kinds of emotional responses did you observe in others?
What surprised people in your Time Machine?
*Probe:* was there anything about your Time Machine that at first appeared ridiculous to participants? Was this eventually overcome? How?
What confused people about your Time Machine? Was this eventually overcome? How?

How did people interact with one another while in your Time Machine?
What was the strangest thing that happened during your Time Machine?
Tell me about the most interesting conversation you had or overheard while in your Time Machine?

Do you think people understood the situation you built for them?
How do you think they made sense of the situation?

What did the debrief discussion do for participants?

Which Time Machine do you personally have the strongest recollection of?
Can you walk me through it...like a play-by-play?
*Probe: how did you know?, what gave you that impression?, What do you think that object is for? Why do you think it was designed that way?*

How did your interpretation of what was going on change over time?
*Probe: were there any moments when things shifted? How about in the group debrief?*

Can you describe to me the world you think this Time Machine was set in?
*Prompt: what year do you think it was supposed to be? how do you think we might have gotten there? What do you think might have been in the news at the time? how do you know? what gave you that impression?*
*What helped you get oriented in this world?*

<u>(Inter)action</u>
What did you do while you were in the Time Machine?

Did you interact with anyone while in the Time Machine?
Can you tell me about a particular interaction that you found interesting?
What were others doing while in the Time Machines?

How did your interactions with others affect the way you made sense of the Time Machine?
Were you asked to make any difficult decisions while in the Time Machine?

Emotion
How did the Time Machines make you feel?
Were you ever uncomfortable?
Did anything surprise you? What?
Did you feel embarrassed at any point? What happened?
Did you feel confused at any point? When? What was responsible for this?
Was it resolved? How?

Synthesis
What did you think about while you were in the Time Machine?
What did you think about after the Time Machine?
*Prompt: how did the post-engagement discussion effect your thinking?*
What does this Time Machine mean to you?
*Prompt: how did the post-engagement discussion effect your thinking?*

Judgement
Do you think this was a possible future scenario? Why (not)?
Do you think this was a probable future scenario? Why (not)?
Do you think this was a preferable futures scenario? Why (not)?

## Participant Interview Script

Warm Up/Intro
Tell me a little bit about yourself!
What do you do professionally?
What interests you?

First Impressions
What did you think of the Time Machines?
Can you describe them to me?
Is the experience of a Time Machine comparable to anything else you've done before?
Please describe these other experiences.

Narrative

Which Time Machine did you like best? Why?
Which Time Machine didn't you like best? Why?

Which Time Machine do you have the strongest recollection of?
Can you walk me through it...like a play-by-play?
*Probe: how did you know?, what gave you that impression?, What do you think that object is for? Why do you think it was designed that way?*

How did your interpretation of what was going on change over time?
*Probe: were there any moments when things shifted? How about in the group debrief?*

Can you describe to me the world you think this Time Machine was set in?
*Prompt: what year do you think it was supposed to be? how do you think we might have gotten there? What do you think might have been in the news at the time? how do you know? what gave you that impression?*
*What helped you get oriented in this world?*

(Inter)action
What did you do while you were in the Time Machine?

Did you interact with anyone while in the Time Machine?
Can you tell me about a particular interaction that you found interesting?
What were others doing while in the Time Machines?

How did your interactions with others affect the way you made sense of the Time Machine?
Were you asked to make any difficult decisions while in the Time Machine?

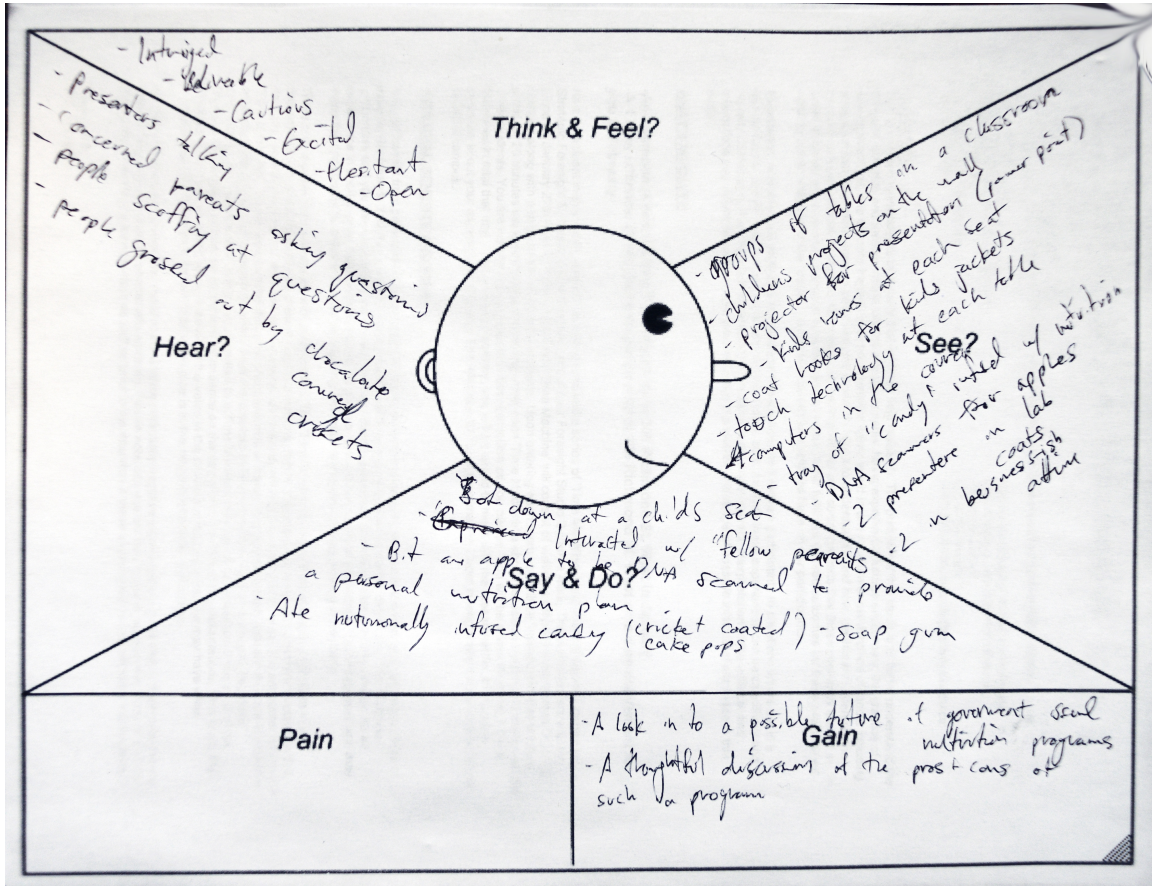
Emotion
How did the Time Machines make you feel?
Were you ever uncomfortable?
Did anything surprise you? What?
Did you feel embarrassed at any point? What happened?
Did you feel confused at any point? When? What was responsible for this?
Was it resolved? How?

Synthesis
What did you think about while you were in the Time Machine?
What did you think about after the Time Machine?
*Prompt: how did the post-engagement discussion effect your thinking?*
What does this Time Machine mean to you?
*Prompt: how did the post-engagement discussion effect your thinking?*

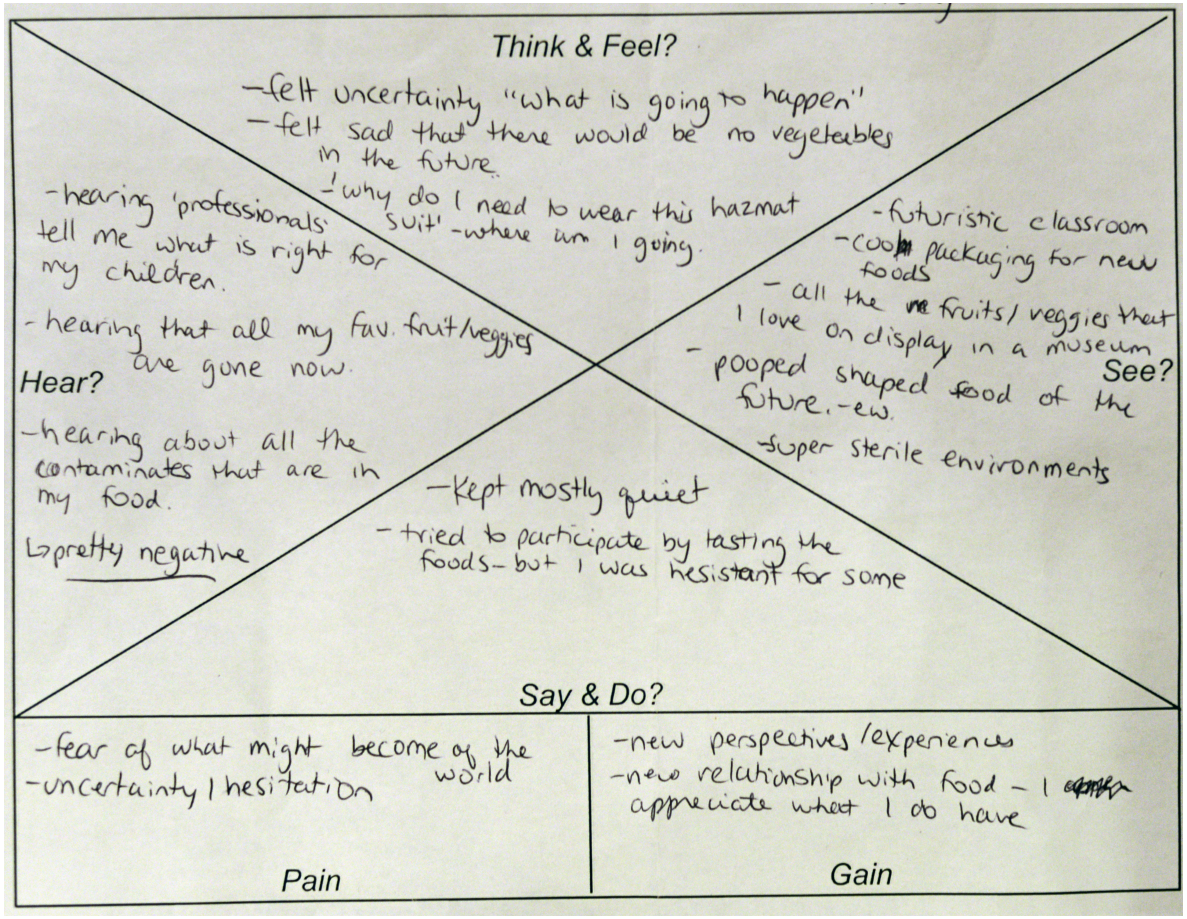
Judgement
Do you think this was a possible future scenario? Why (not)?
Do you think this was a probable future scenario? Why (not)?
Do you think this was a preferable futures scenario? Why (not)?

## APPENDIX D- Empathy Maps

### Samuel's Empathy Map



**Abby's Empathy Map**



## APPENDIX E-Theme Tables

| Abby's Theme Table | | | |
|---|---|---|---|
| | | | |
| **THEME TITLE** | **EVIDENCE** | **PARTICIPANT** | **PAGE** |
| Breaking The Universe/Social Interactionism | He allowed us several seconds to ask questions and I thought that it was really interesting that other people were like just playing the roles with such ease and asking him questions that one women was like 'why I love coffee, where am I going to get my coffee from?'...I wasn't super clear on what my relationship with coffee would be within this world. Like do I know coffee? Or is this just a world where there's never been coffee?...I thought it was really interesting to watch the other participants just jump in and ask questions like that | Abby | 14 |
| Breaking The Universe/Social Interactionism | In reference to the coffee questions: 'It broke it and it sort of made it all the same. Like it definitely broke it because I think that the setting was supposed to be in a world so far gone that here's like it was also like a history. Here's what coffee used to be used you know, it was as if you've learning about coffee for the first time. So then when she said, 'well I love coffee, where am I going to get coffee from' If we lived in the world where we had to go to a museum to see coffee and learn about coffee then why would there be this hysteria around like, oh where am I going to get my coffee from. I guess in that was it broke the universe but in another way it made the experience in the Time Machine more fulfilling because of the way the guy was responding to it was allowing his character to flourish. | Abby | 16 |
| Character/ Social Interactionism | I guess its a level of trust and that you know we're trusting these students of OCAD that they're not poisoning us. * See transcription notes about eagerness to participate well overshadowing political action | Abby | 30 |
| Character | Just by being present in the room you'd become part of the scene | Abby | 5 |
| Character | Well my child does this" or like, 'We like to do this'...I just like didn't know to do that. I didn't know I could interact with it in that way | Abby | 53 |
| Cognitive Estrangement | There was like a light shining on it so it was sort of like put on a pedestal, like' why is broccoli so special' was sort of what I was thinking. | Abby | 9 |

| | | | |
|---|---|---|---|
| Cognitive Estrangement | Well it make me chuckle because why point fingers at Levi's it was kind of funny they'd actually chose a company but it maybe it did make it more I don't know, It made it more believable. | Abby | 11 |
| Cognitive Estrangement | Because the way the room was set up that was there were like 4 or 5 items on display and that was it, the rest of the room there was nothing else going on. So like all you could do when it was like maybe 5 minutes let us just look around and all you see is this like pillar with broccoli on it because the light shining on it and it just looked kind of like I don't know regal and but why do we have like broccoli so common in our own experiences so why in this world is broccoli put on display in such a way. | Abby | 12 |
| Cognitive Estrangement | In reference to the Museum: 'It was powerful because it all makes sense like it theoretically lined up to be the future but it was also like so far from the present day that it was cool. | Abby | 18 |
| Cognitive Estrangement | Yeah I think like walking into that room that first one that was surprising just seeing vegetables, fruits and vegetables that we take for granted put on display in that way is surprising. | Abby | 23 |
| Expectations/Literacy | I guess the most surprising was the first time I stepped into the first Time Machine is I was surprised about the detail had to make the world believable. I guess I didn't have any expectations for the first one because I just didn't have any idea what these things are. And then I had to make more of conscious effort to not have expectations for the second two because it was a totally different world that they were setting up so it was hard not to make any pre-judgements about what I might be experiencing. | Abby | 25 |
| Movement Towards 'IS' | I was confused about what it was they were feeding me and when I asked them they were still in character so that they were just telling me what it was in that world and I wanted to know what it was really! I'm like am I actually eating this or is this real or not like I lost track of what was real. That was kind of near actually if we look back on it...this blurred line of what's real and what's not. Like so for example they gave us these charcoal pills and told us they were charcoal pills that were intended to like cleans your body or whatever. So I was like, are these actually charcoal? And they said yes, these cleans your body. Like but this is a black pill your telling me to take. Like can we just be straight for a second? Like what am I going ti be ingesting here? I didn't because I didn't trust it...I wasn't getting a straight answer. I would have reacted the same way had that been real. I means what's in the pill? Like I don't trust it. | Abby | 26-28 |

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| Movement Towards 'IS' | Contrast to gum in school: 'This is chewing gum, right? And so yeah they packaged it differently...they're calling it something else but I know what's in here. | Abby | 29 |
| Outsider Minority | I'm not sure we had the same experience as the students who were like well informed about what Time Machines are and like what its intentions are and even I kind of run into it as outsiders and so I think that maybe I was like lastly to jump into a participating role...you know like it was harder for me to fully immerse myself in it. | Abby | 53 |
| Presupposition | I mean I started making an assumption like this is the world where maybe broccoli no longer exist and that's why we are looking at it from behind glass casing. So yah I sort of gathered but I really did like that they told the story because it was really believable why broccoli is no longer existing. | Abby | 13 |
| Social Interactionism | I think Samuel and I were our of character talking to each other a lot. Like 'I like the way they've done this, the way they've done that, how cute is it, like their attention to detail in the purity one. Yes it was just this more like 'Are you eating that?, Are you going to eat it? Tell me if you're going to eat it." and he said, 'Okay I'm going to eat it!" | Abby | 44 |
| Social Interactionism | Hearing the mom's talk about it made the whole question more like in my own mind it was easier to see both sides whereas before I heard from other people, I had my own opinions formed without even considering the other side. *Allows spread of ideas between participants to enter frame of XF to create revisions and shape the visceral part of experience. I was important to hear people from different backgrounds and with different life experiences, how they were interpreting it. | Abby | 56 |
| Technology As Anchor | I mean the technology exists now because they're using it. So it was very believable that that's how presentations would be in the future...I mean we are all getting used to the swiping mechanism. | Abby | 36 |
| Technology As Anchor/ Break The Universe | But they didn't really address it that much and it just became more of this thing like, 'who's going to eat the crickets'...maybe they could have laid into that a little more because there is this projection of insects being a part of our cuisine right? *In comparison to the ease in acceptability of wide spread tech change in world | Abby | 38 |
| Thinking By Acting | I liked having in both of those scenarios, I was given a choice whether to buy into it or not, whereas in the middle one, the museum one, like you're forced into it like that's the world we live in. Well the school one were like, 'do you want to | Abby | 48-49 |

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| | sign your kids up with this?'...they didn't actually make us sign but that was the implication...Like the meal plan starts next week so you have to decide by next week. | | |
| Thinking By Acting | Seeing the program running and like feeling what my child is going to go through and like this is what it'll be like to make this whole thing more believable, but I guess it was sort of adding to like this is maybe kind of scary like now all my information is in this computer and who are these people who run this computer program...Actually seeing my data be transferred from the apple into the computer like the way they had the program like calculating your nutritional whatever that was. And then where it going? What is this data going to be used for? | Abby | 50 |
| Time Horizons | I've been in environments where they are trying to create a mood or a scene but never that's rooted in this possibility of it being true in the future so like I saw the path that may lead to this scenario being real | Abby | 3 |
| Time Horizons | Probably not much to be honest like I was able to infer that it was distant enough in the future that we lost this species of food but like to know an exact date really didn't contribute I think to the experience. | Abby | 20 |
| What's Next? | I felt anger and then like al little light of where, what can I, i'm not, this is not, like what can I do about it? Can we do something about this now like if we're not in that world, we're here! We Still, have broccoli can we do something about it now? Can we make changes now? Like one of the things I thought about after the Time Machine is can we bring this experience to the public then can everybody go through this and then maybe there will be some sort of social change. | Abby | 21 |
| What's Next?/ Social Interactionism | During the debrief the most contentious questions were posed. So I thought the debrief was super interesting and made my opinion change...I felt why the hell not but then after talking to or hearing other people's opinions, I saw one. | Abby | 33 |
| What's Next/ World Construction | They connected it to current events like the draught in California. Like it just made it and enriched the whole experience knowing that. | Abby | 41 |
| What's Next/ World Construction | Whereas the question for example was 'what will this company do with the data?' was a question that parent asked, and that's what a parent would ask, versus the questions that we were asking in the other ones were less about understanding more interpreting the world and more about, I don't know, they were more superficial...whether or not i'm going to make this decision I need to know the answers to these questions. *the questions were more about the implications an consequences of change rather than completing the picture of that change | Abby | 59 |

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| World Construction | I guess it's something that kind of confused me...it's gotta be a museum but if you're trying to sell us something then try and sell us something but I guess sort of an homage of what used to be...but i'm not sure why they had the museum if they were just trying to sell us some food. | Abby | 10 |
| World Construction/ Path of Discovery | I wonder if the museum one hadn't been explicit would I have been able to make that connection because it is so far into the future that it's good that they connected the dots for us. Whereas the one in the school didn't need to. Like it's so feasible like this could happen tomorrow, but it wouldn't shock me of that happens tomorrow! | Abby | 4 |

| Samuel's Theme Table | | | |
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| **THEME TITLE** | **EVIDENCE** | **PARTICIPANT** | **PAGE** |
| Breaking The Universe | There were a few moments where people were like a little aggressive I think they were being so as parents, they were like i'm gonna play the parent. And some people were like not totally recognizing that this is the character that participants were playing. And so they were like, there was this confirmation from the person talking, 'no, i'm asking this in character' | Samuel | 11 |
| Breaking The Universe | We definitely looked at each other and talked about it for a good thirty, forty seconds. So I can definitely say that like I didn't pay attention for almost a minute as a result of that one detail. 'Thats not real right? Like that's not possible yet?' | Samuel | 10 |
| Breaking The Universe/ Social Interactionism | "...people didn't want to be seen as like a dick of something" | Samuel | 12 |
| Character & Breaking The Universe | "this was the only one I was really encouraged to participate in...the other ones were sort of like watch, you're sort of like an observer although you're part of it" | Samuel | |
| Character & Collective Sense-Making in Q&A | "Where is this DNA going so i'm going to get this information and be able to sell it, could even use it...who's the government to tell my kids what to eat like we come from a culture where i'm more inclined to like listen to my mother about what kind of food I should eat then like some guy in a lab coat and a computer program" | Samuel | 14 |
| Cognitive Estrangement | And that environment is something somewhat familiar but definitely altered | Samuel | 3 |
| Cognitive Estrangement | It's sort of equally utopian and dystopian...it sort of representative of a world where the government sort of reached a little too far to what living in this time we would feel comfortable with | Samuel | 15 |
| Cognitive Estrangement | ...I sort of see it like a very obvious way to get children to eat nutritionally correct...It was like let's just modify all of our food to be healthy still keeping the general flavour and like sort of trick our kids to eating it. | Samuel | 19 |
| Description Of Time Machine | NA | Samuel | 13 |
| Emotion In Thought | In response to a 'pre-brief': I think at first the intuitive response to this world and what's going on imprints on you more than like sort of like the cognitive intellectual part of like picking the world apart. I think that is what makes these experiences of | Samuel | 33 |

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| | the future so effective...I mean videos could definitely attack your emotional responses but I don't think they're as long lasting | | |
| Emotion In Thought | I think it's like if you tell people about it, the expectation...you're taking away your intuitive response with information. And I think by giving people information, that intuition, that first like walking into that room has been like diminished also. * See transcription note: leave clues to enhance engagement with ethical side of scenario, but not diminish emotional impact. | Samuel | 33 |
| Emotion In Thought/ Extended Mind | "Definitely before we left the universe, however, I probably wouldn't have been able to effectively communicate it right away"- in reference to his judgement/evaluation of ethics | Samuel | 15 |
| Emotion In Thought/ Extended Mind | "the second one was very dystopian, it was like we've lost all of these crops now, we have to create these like really, it was in a very cold dark environment presentation and we were talking about how like through capitalist agriculture and like corporate control we've lost all these crops like banana's, coffee profit and now they've created these like synthetic foods and this is like the only option for food" | Samuel | 15 |
| Expectations/Literacy | "I probably remember it the most because...it was the first one i've ever experienced so this whole idea of experiential futures is new and so like it was a first impression and it definitely imprinted it...because it sort of made like creative expectations for the next two." | Samuel | 16 |
| Expectations/Literacy | The expectations were like, 'Okay so i'm walking...i'm going to walk into a room. That's the first thing. I'm walking into an enclosed space. I'm going to be guided through this. Someone's going to tell me what to do. Going to tell me like things, information. There's going to be details about the room that are going to inform me about the world. There's going to be things to interact with There's going to be a lot of implicit information.The experience with the Time Machine could have been like people talking like "this is an experience." You know like that could have been a possibility. That could have been the way these things played out. | Samuel | 34 |
| Expectations/Literacy & Social Interactionism | It made me more thoughtful about it. I didn't have a framework to understand what this was all about. And the first one sort of created the framework for me....I also got a sense of what other people are thinking about, well participated in it in this sense...And the kind of things they enjoyed about something...but during the debrief I got a sense of like other people's perspectives of this experience and so from that I got a better understanding about the frame." * See transcription note: debrief converges not just opinions but also attention and experience of it. | Samuel | 35 |

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| Experience-As-Designed | People would very much talk about the experience as an experience they were having that moment rather than being an actor in the play. People would comment 'oh that's a really nice detail' Two people would comment about like the objects in the room and how they like added to the experience. | Samuel | 40 |
| Experience-As-Designed | So instead of being like 'that's a nice product that this company is offering' its more like, 'that's a nice detail that this group has involved in their presentation' *See transcript note: as a majority without character it can be disruptive of experience. | Samuel | 42 |
| Gestural or Intuitive Interactions | Like looking at the gross food like, 'uh it's so gross,' I'd say in the Time Machines it was in very physical terms like gross, uncomfortable, I would never eat that' | Samuel | 37 + 40 |
| Outsider Minority | Having a shared experience helps interaction but also like layers of being part of something so you don't want to like get into something or so its very much like just sort of like one comment here or there and sort of like looks about something | Samuel | 37 |
| Paradox Of Restricted Info | I think the restriction of information was definitely the intent...the intention was not to make you feel comfortable...part of being uncomfortable is being unaware of where you are. | Samuel | 27 |
| Path of Discovery-Attention/Narrative Direction | There was a sequence of events in which you are sort of being led to experience...so all of them have like a sequence in which to follow | Samuel | 4 |
| Path of Discovery-Attention/Narrative Direction | It was not so much a buffet right it was like a three course meal | Samuel | 5 |
| Pre-reflective/reflective Sense-Making | It definitely felt like I was in a classroom. Unfortunately, the room that we were in was like too small for it to really be a classroom but [It] definitely felt like a classroom | Samuel | 7 |
| Pre-reflective/reflective Sense-Making | The other one had like a bit of art gallery before you enter the restaurant or like whatever it was...it had like quotes on the wall with like galleries were like the promise of high food hygiene and it gave us the years....Looking back I don't really understand why it was there but I appreciated it at the moment...why would a restaurant put that stuff before it | Samuel | 17 |
| Presupposition | There was like a corner with little hooks against another wall for the kids to put their coats on. There was like a corner with like books and little games and the carpet where you know kids would go and use. | Samuel | 7 |
| Revisionary Sense-Making | ...the assumption here, I think, which became less assumed..."she explained sort of this program that was government funded..." | Samuel | 7 + 13 |

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| Social Interactionism | "So you had like a presentation, you interact with the computer, you talk amongst yourselves, all these genetically modified foods were brought up and you got like samples" | Samuel | 13 |
| Social Interactionism | You get to a place in this bigger room and there's these four stands with food on them. With like a glass case. And there was like two bananas in one. There was like broccoli and coffee beans and there was this other thing. Some people said looked like cat vomit, some people actual shit and was like 'The Future Food' | Samuel | 25 |
| Social Interactionism | I think also because people generally knew each other there was a lot of social interaction. | Samuel | 39 |
| Social Interactionism & Breaking The Universe | Eating is generally a social activity...there was one thing or like there was a pack of like soap flavoured gum. I remembered from my childhood and we sort of bonded over that.' | Samuel | 38 |
| Social Interactionism & Breaking The Universe | See story of 'Of Course we need to tell our kids what to eat' and eating food from native country in Q&A as instance of voicing assumptions and values. Character would smother this dissonance. | Samuel | 50 |
| Social Interactionism & Team Sense Making | We would sort of talk about it as we wen't in....I think having someone there with me to sort of like as a team sort of go through the experience, sort of made the experience richer because I had someone to sort of bounce the experience off of. | Samuel | 46 |
| Social Interactionism & Team Sense Making | It's very simple like: 'Oh that's interesting, that's cool. I like that,' Maybe, like just comments like that or "I don't know if i'm going to each this.' Like, 'Did you eat it?" | Samuel | 47 |
| Social Interactionism & Team Sense Making | She would point something out that I didn't see. She'd be like...and i'd be like cool or vice versa. We would sort of like show each other the world...We would definitely try to decrypt, decode...more information from the environment through talking to each other. | Samuel | 48 |
| Social Interactionism & Team Sense Making | I think the Q&A in the world really worked because it got everyone to sort of digest this idea together | Samuel | 53 |
| Technology As Anchor | ...based on my intuitive understanding of biotechnology, I imagine like we're moving into a place where doing simple tests like that are getting less invasive if you want to make it as easy and quick as possible. So it made sense that like, okay, just take a bite of an apple and boom, they get your DNA | Samuel | 20 |
| Think By Acting Intuitively/Extended Mind | "Yeah you're picking up the apple and like, 'Okay...' Where if you didn't do that, you weren't faced with that immediacy"- *See transcription notes | Samuel | 21 |

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| Thinking By Acting Intuitively | But I also on a personal level disagree with the values of this sort of establishment like I did with the school. The school I sure had issues with it like I was more on board with grading and really good nutritional programs for kids rather than like a bunch of rich people eating really hygienic expensive food, you know? | Samuel | 30 |
| Thinking By Acting Intuitively | The other two environment were not familiar and do not feel comfortable in. I was in a hazmat suit in one and I was holding food in another that looked weird | Samuel | 31 |
| Thinking By Acting Intuitively Vs. Immersive Context | And so I was like 'Screw this shit." I'm like I at it anyway because I wanted to like fully immerse myself in that sort of environment... | Samuel | 30 |
| Thinking By Acting: As if-IS | Yeah they felt very uncomfortable about taking it because it said like 'if you've taken medication in the four hours previous please do not take the charcoal pill' And so I think people were like, 'Oh why?" "Why should I not?" and so people were like "is this not good for me?" | Samuel | 30 |
| Time Horizons | "It makes you analyze whether you think this is believable? You know, because its like 2030, that's reasonable to me. I'm someone who is 27. Fourteen years is something i've experienced and i've seen what changes in fourteen years and so I could foresee this change...if you saw it was 2090. I have no idea what changes in that amount of time based on, besides based on history...and so then to really experience that leap into the future, I don't know how to grasp on to things that are never there." | Samuel | 22 |
| Time Horizons & Cognitive Estrangement | You get to draw on similarities and differences based on the time you actually get *See transcription notes | Samuel | 23 |
| What's Next? | ...then afterwards learning that the intention was like you're still in America and trade to other countries were cut off and so the food is not available to us | Samuel | 26 |
| What's Next? | We would talk about the debrief for like how thoughtful we thought some of the discussions were or like talk about actual ideas about a thing | Samuel | 47 |
| What's Next? | Otherwise, like I said, it's like 'Okay, there's a profit, cool but I don't understand the context of where it's coming from or what caused it." I don't really know how to start thinking about the solution because...the experiences are emotional and experiential at first. Then, after that experience, you are left with a lot of things to think about. So if you don't have like enough information, to start developing ideas and thoughts then its a very shallow experience. | Samuel | 61 |
| What's Next? | I think of how much and what information is important | Samuel | 63 |

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| World Construction | ...we're not talking about just diets, like everything is in the future, we're in 2030 and it's very, you know it's like holistic... | Samuel | 10 |
| World Construction | ...we were aware of it as a sort of detail they were adding to help me feel like you're in 2030 | Samuel | 11 |
| World Construction | I think it belongs to a world pretty similar to our own...we live in a time where we are getting used to the problem and it's an increasing problem so fourteen years into the future we're looking at a world where the government had to step in and take control on the ground. | Samuel | 14 |
| World Construction: Emotionally and narratively | You feel like you could be in the basement thirty two floors under some sort of like hi-tech secret agency...the sense of environment is totally stripped...I could totally understand how some thought 'Oh we're on like some sort of like planet on mars or some sort of like base on the moon...you would imagine because all the agriculture was dead, maybe we had to leave planet earth as a result. | Samuel | 26 |
| World Construction/Emotion In Thought | "Some people felt like it wasn't even on planet earth it felt like we were in some sort of space module like very, very cold and very dark like you know" | Samuel | 16 |
| World Construction | There was a Q&A built in and so you got to ask questions of the world, sort of implied in your question like, 'who funds this project?' "what does this do?' Like 'I want to know more about this!' You know, and so that allows you to get information. | Samuel | 27 |
| World Construction & Technology as Anchor | You're having people experience technology that they're not familiar with, and every time...you're going to think about it and comment on it at least in your own mind | Samuel | 43 |
| World Construction & Technology as Anchor | If I want to believe this is 2030, do I really think its the same technology as we have now? It's sort of a catch 22. Its like i wanted to be as realistic as 2030 can be but its too new to me now I would be very aware of it...All this shit is so different but that's just the reality of being thrown into a future scenario. I don't think that necessarily throws me out of the universe. | Samuel | 42 |

| Talia's Theme Table | | | |
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| **THEME TITLE** | **EVIDENCE** | **PARTICIPANT** | **PAGE** |
| Character | I think for people who are shy, it sets them out and they didn't want to be part of it. Some will and some won't like it but isn't that the way it works? | Talia | 38 |
| Character/ Social Interactionism | In the restaurant one, there was an interesting sort of Jello looking food that had gold leaf on them and then you were intended to eat them and I didn't want to. But I didn't want them to be offended that I didn't eat them. *Purity had a lot of pure pressure...sort of the point | Talia | 17 |
| Movement towards 'IS' | It was interesting that the charcoal pill says, "don't tak it if you're under other medication.' And it was unclear to me if that was part of the act...it turned out that was a real thing. | Talia | 18 |
| Social Interactionism | I would say that in all the Time Machines you were always asked to visit as an individual *Missed opp for group action | Talia | 14 |
| Social Interactionism | Not everyone has the same experience...like if you were sent to customs, certain people were held up in line, certain people were sitting in the auditorium watching a movie for almost the whole time, while others were in line waiting to even get in. | Talia | 15 |
| Social Interactionism | In the debrief: I feel that people did gather and were looking for a voice collectively like one voice from individual voices. | Talia | 37 |
| Social Interactionism | It gives you the opportunity to be part of a community...even if you are just sitting beside somebody else, you are still part of a group. Whereas when you are reading or seeing an image, you are an individual. *And that community is continually defining what it believes in together. | Talia | 42 |
| Social Interactionism- Group Think | It's definitely through the conversation and it's definitely one of those situations where the group think starts to happen until somebody who was an advocate for food...a food safety, food development...someone with an outside force...turned the tables...As soon as she started to be negative then the negative light was on the framework. | Talia | 12 |
| Social Interactionism- Group Think | I had a different perspective on it. But you were almost scared to speak up and say it. I was personally a little bit angry in the school one because I felt outvoted by the | Talia | 13+ 19 |

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| | loud voices. I was feeling that people weren't considering all aspects of things so as a citizen I think I was a little bit angry. | | |
| Technology As Anchor | The idea that somebody could take that kind of information from you moving forward throught a medium. Think about using things like that going around with Apple and asked to open the backdoor and somebody finds an apple phone in your terrace. *The tech itself has huge concequences beyond the context of the Time Machine | Talia | 25 |
| Thinking By Doing/ Emotion in Thought | I allows you to actually become a participant when you cannot be a participant in just a story being told to you...you get much stronger feelings because again you're in the act of doing versus the act of just passively listening or seeing something. | Talia | |
| What's Next | It's a different way to think about today...I wonder if those who could truly work with future worlds... would have a better chance to change what food they're having. I think that they needed this time to understand the steps to take to make change happen *In response to why set in the future | Talia | 30 |
| What's Next | That's the part about the Time Machines and that it could be a letdown and you know, so what now? Could there be another thing after the Time Machines. Would there be a workshop immediately after where we're actually working as citizens and somewhere else let's say we've got a group whether the government or a community group or somebody else who wants your responses from what you just saw and start brainstorming gall the ideas about what you think of the change. * Question becomes what scenario info do they need to participate well at this stage | Talia | 33 |
| What's Next | I think the reason why it kind of made me mad is that everybody reverts quickly to thinking about their own family and their own selves....they get lost in the picture in the present. *in reference to debrief * people had trouble holding the future frame...perhaps because they go in as themselves in 2016 they come out as themselves in 2016. Would character help or is this okay? | Talia | 36 |
| What's Next | As a parent it's a whole different thing to introduce something like this. What would you do other than say yes or no? *Call for more than evaluating preferability but also thinking strategies and tactics! | Talia | 37 |
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| Ariana's Theme Table | | | |
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| **THEME TITLE** | **EVIDENCE** | **PARTICIPANT** | **PAGE** |
| Breaking The Universe | You had stuff that you wanted to say from perspective of you know, yourself in this time. *Said in relation to debriefs in character but also in Time Machine itself...would be more obvious with subject knowledge expert with more to say from present | Ariana | 7 |
| Breaking The Universe | What happened in some of those conversations is that people for example, when they were tasting those things, weren't necessarily tasting them as parents in the future. Its conceivable that so much time in the future, some of the tastes that we are familiar with now may not be as familiar right like or maybe so familiar that they are not even recognizable. They sometimes tasting them as themselves in the present wondering what they have used for that thing or how they got those....there was this kind of 'back and forth' thing. | Ariana | 7 |
| Character | So, we have this, you know, as you can imagine a parent teacher pairing school thing you know, the person facilitating the meeting says 'Are there any questions?' And so you know I assume that we were supposed to be parents in that sense. | Ariana | 7 |
| Character & Movement to 'IS' | And I don't think that people would be like that in a situation like that situation. I don't think everybody would be docile. I do think a lot of people would be unfortunately docile. * Were being polite participants | Ariana | 11 |
| Character- Breaking the Universe | Those reactions were real but I was also in role playing so when I was asking my questions I was talking as thought I were a parent there and saying what my child does and what my child needs. I think he stepped out of the role because he was saying what he had already done that day. | Ariana | 4 |
| Emotion In Thought | I would not want to say "you know, i promise that you won't experience any discomfort' or something like that, not at all. I think it's really important there's a potential for that. I think knowing that there could be a situation in which you would be uncomfortable, puts you in a good head space to be able to participate in a way that I think enhances what you get from it. | Ariana | 17 |
| Emotion In Thought | They were all more or less blonde with ponytails and kind of white clothing I think. Their clothing, it wasn't all white uniform but it was all very similar. So, | Ariana | 22 |

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| | what I felt in that situation was I felt dirty, like I felt, "oh I don't belong in here like i'm too dirty to be here" | | |
| Expectations/Literacy | I had a privileged place right, because it was the first time machine. So after I went to that time machine my experiences with the other time machines might have been like, coloured. It was just heightened in that because it was the first one. | Ariana | 10 |
| Knowledge Levels Enrich Interpretation | The food they made it all look like candy which was sort of again a problematic for me in terms of like you know what could foods look like and all see things...it removed the whole culture of dining which every study we can look at shows is us really important for health | Ariana | 4 |
| Knowledge Levels Enrich Interpretation | We didn't know until recently that in fact whether you eat a carrot whole, whether you eat a carrot, you know cut up into tiny winy pieces has actually a difference on the nutrients that you get in your body. A lot of these deodorants actually cause bacterial problems because they throw the body's own balances off. *referring to children candy and purity notions | Ariana | 5 + 22 |
| Movement To 'IS' | Once there was a somatic response to something people felt it was hard to stay in character when there is a genuine somatic response that brought them very much to the present and you know they were dealing with that experience whether pleasant or unpleasant. | Ariana | 8 |
| Movement To 'IS' | Is this something that happened to them and they're just like me and they don't know what is going to happen next or are they part of the theater and they knew this was going to happen .And so, you're on this, you're tethering on this line between being in the Time Machine and not being in the time machine. Being, perhaps anxious about your own experience. | Ariana | 11 |
| Movement To 'IS' | It wasn't clear what we were going to be doing next. So that kind of heightened the anxiety like "what are we doing in these white suits?" "Why do we need these suites?" Like, "What are we going to be doing?" | Ariana | 19 |
| Paradox Of Restricted Info | In a way it was very clever to have it in a basement because it sort of made you feel like there was stuff happening above and around you that you didn't really know what was really going on. *then how can we do anything about it! | Ariana | 14 |
| Social Interactionism | So I was sitting with a group of women against the wall. I didn't know them. I think they were other students and they were all I could having the same sort of responses to this as I was...I could hear them talking and then I was always talking with them and you know, we were uncomfortable with some of the things you | Ariana | 4 |

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| | know, gasping at certain points | | |
| Social Interactionism | So that was kind of a revelation to me to think that their could be even one person who would think this was a good idea, that this was a terrific idea and he really did. And then it turned out that once he made that, opened that space up, it turned out that a few other people also parents thought this would be a great idea *See transcription note: the value of others reactions as important in time machines as the time machine | Ariana | 5 |
| Social Interactionism | You know the people who are down in the basement from the start had a really different experience from the people that were down in the basement at the end. And I don't know what I missed because I didn't experience that part of it. *Opportunity lies in more of this in relation to creating more divergence/tension | Ariana | 14 |
| Social Interactionism | Are you going to take that pill?" "I'm not taking that pill" And I kind of sensed that we were in this together. I think we were experiencing this individually. I think we were encouraged to experience it this way. | Ariana | 24 |
| Social Interactionism/ Literacy | Well there were just posters and pictures about what was coming, what was happening inside. And I don't know that I would have known to start looking already and it was only because I saw them kind of, I was behind them and saw them kind of going from post to post that I kind of did the same thing. It just had all the trappings of a government sign. And I didn't care to look at it because I did not think it was relevant. | Ariana | 10 |
| Thinking By Acting Intuitively/ Movement To 'IS' | Almost none of us took that pill. It was a capsule I think. Like i'm generally not a pill popper. I guess in the future, I'm also not a pill popper but i'm also super not a pill popper of a pill that has no label, that somebody just gives me like that would just to me, to be the most absurd and stupid thing you could possibly do, right? * Works in-world and outworld, and forces judgement through action | Ariana | 21 |
| Time Horizons | It didn't detract like I never had the experience of: 'Oh this is unbelievable' not at all. It didn't matter one aoida to me whether it's 35 years from now or 55 years from now or whatever...It was like not far ahead future and that was enough. * Plausibility comes from realism in path from now to then. | Ariana | 16 |
| What's Next | I wasn't so sure that we had the chance to sort of delve into what are the consequences of that. You know, beyond the sort of obvious like concerns about privacy and things. *See transcription about ideas emerging later but unable to be shared | Ariana | 6 |