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Enacting futures in postnormal times

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ABSTRACT

This article describes FoAM's transdisciplinary, participatory approach to experiential futures. We introduce several practices with a primary focus on "prehearsals" and "pre-enactments", interactive, immersive situations where participants can experience futures in the present at human scale. We explore aptitudes and techniques that are inclusive of multiple ways of knowing and learning, in order to probe futures from different perspectives, as well as foster engagement and commitment amongst diverse groups of people. We discuss why working with futures is particularly relevant in times of social and environmental turbulence and suggest that a more widespread futures literacy can increase agency in uncertain conditions. We focus on "future preparedness" and "inhabiting uncertainty" as mindsets to be developed alongside a futures practice through experiential learning, using techniques from improvisation, play and meditation. We investigate how experiential futures can extend the field by looking at embodied, multi-modal, holistic explorations of futures. We provide examples of FoAM's recent works to illustrate our experimental approach to futures, aiming to bridge the gap between future visions and the uncertainty of everyday life.

1. Introduction

We describe a range of approaches to experiential futures as practiced by FoAM, a distributed lab for speculative culture. Our approach to futures and foresight is from an oblique angle, as motivated creative practitioners in socially and environmentally turbulent times. We are particularly interested in finding ways to increase agency in uncertain conditions and see the field of experimental arts and culture as a creative crucible. We prototype futures as artistic experiments and translate experiential learning into forms of knowledge pertinent to the lives of the participants. Exploring the depth and breadth of *what if* thinking in the context of cultural resilience, we have gradually added futures methods to a broader palette of transdisciplinary (Nicolescu, 2008) techniques to think about, discuss and prototype futures. We see experiential futures as a tool to crack open the door to multiple possibilities for change in the present.

The unifying purpose of our futures-related work is to encourage audiences and participants alike to embrace uncertainty without giving into fatalism. We are keen to encourage a pro-active engagement with whatever comes to pass by fostering futures literacy as a way to connect visions of the future with the fickleness and unpredictability of daily life. We work with people from all walks of life, including teenage mothers, policy makers, academic refugees, the cultural proletariat, environmental NGOs, goal-driven CEOs and unsuspecting festival visitors. We approach futures with an emphasis on diversity and participation and therefore find it essential to both acknowledge and incorporate multiple ways of learning.

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Exploring the same issue using multiple modalities (e.g. words, sound, images, movement, or spatial orientation) fosters a coexistence of diverse perspectives. As a form of multi-modal embodied learning, experiential futures has the potential to be inclusive of, and speak to, a wide range of people. It can provide ways to extend the experience of the present moment to include larger temporal scales of the "Long Now" (Brand, 1999) and foster the evolution of "ambient foresight" (Candy, 2010), a futures literacy embedded in the habitual behaviours and actions of daily life.

In this paper we bring together practice-based insights, gained through developing and facilitating situations in which the participants themselves can co-create images of the future (or parallel presents) based on their assumptions, hopes and fears. We particularly focus on interactive, human-scale experiences which we call "prehearsals" and "pre-enactments". Prehearsals are short improvisation exercises that can be incorporated into scenario workshops and other futures processes, while pre-enactments are immersive situations that last for hours, days or weeks and often include costumes and props. Prehearsals and pre-enactments invite the participants to explore their behaviours, assumptions and ideals in challenging and unpredictable conditions. The goal is to gain a deeper understanding of how the participants' individual and collective experience might contribute to possible futures. These experiments provide temporary, relatively safe, delineated zones for testing visions of the future as experiential prototypes. We see prehearsals and pre-enactments as parts of a more general "lab approach" to futures where any *"what if?"* question can be translated into an experiment able to be performed in the present. We imagine a time when futures are entangled with daily life to such extent that they are iteratively imagined, tested, adapted and integrated in everyday experiences, as a continuous refinement of being alive in the long now.

In asking how these experiences can contribute to the field of futures studies we suggest embodied, multi-modal and holistic explorations of futures as both supplementary and complementary to existing methods. This article offers a series of propositions and probes on the edges between experiential futures and other areas dealing with uncertainty (including improvisation, meditation, play and games). We do not aim to add yet another method into the already saturated arsenal of strategic foresight, nor do we offer an exhaustive and rigorous academic study of our approaches to experiential futures. Instead, we hope to elicit questions, suggestions and ideas for transdisciplinary futures experiments that can be developed further.

1.1. Structure of the article

We begin by outlining the conceptual background of FoAM's work with experiential futures and suggests there is a need for a pro-active and widespread "future preparedness" (Section 2). Two aspects of future preparedness are discussed: visionary adaptation and inhabiting uncertainty. Visionary adaptation (2.1) looks at prototyping futures as a way to bridge the gap between visions of preferred futures and a continuously changing reality. Inhabiting uncertainty (2.2) explores meditation, play and improvisation as ways to complement futures experiments and attune to uncertain conditions. By connecting future preparedness with experiential futures we show the importance of situated and embodied experiences (Section 3). In Section 4 we describe FoAM's work with experiential futures, introducing the methods of "prehearsals" and "pre-enactments", presenting some examples of realised works (4.2) and lessons learnt (4.3). Section 5 concludes the paper with an overview of further work, including our long term goal of fostering a speculative "lab approach" to everyday futures.

2. Future preparedness

> "A foresight culture therefore emerges at the dawn of the 21st century. It is a culture that routinely thinks long-term, takes future generations seriously, learns its way towards sustainability and brings the whole earth back from the brink of catastrophe."
> –Stuart Candy (Candy, 2010)

At the core of futures practice is a positivist assumption that while the future may not be completely knowable, we can shape, understand and prepare for it (Sardar, 2010; Schultz, 2012; Schwartz, 1998). Being prepared for an uncertain future may at first appear paradoxical, yet this mindset is essential to face the contemporary global turbulence of climate change, global weirding, economic and social crises which promise to destabilise our best laid plans (IPCC, 2014). In such uncertain times, techniques from futures studies should be able to help people make sense of weak signals and better understand the tangled forces at play from human to planetary scale. Rather than providing pre-packaged images of possible futures however, we consider it important to encourage do-it-yourself and do-it-together attitudes towards the creation and exploration of futures. Awareness of the multiplicity of futures (Calvino, 1996) and the possibility of influencing the course of one's own life lays the foundation for a pervasive future preparedness.

Two distinct approaches to "Future Preparedness", both firmly grounded in present experience are "visionary adaptation" and "inhabiting uncertainty". Visionary adaptation suggests that the vision of a preferred future both guides and evolves through iterative feedback with the actuality of the unexpected present. Inhabiting uncertainty is concerned with acknowledging the unknowability of the future (and indeed much of the present) and finding ways to thrive in unpredictable conditions. Both perspectives foster an awareness of the interaction between hindsight, insight and foresight, between alternative and preferred futures. This awareness can stimulate a sense of agency based on an understanding of which things appear more constant or variable in one's environment. "The Future" and "Uncertainty" can thus appear less monolithic or unsurmountable, rather forming an ecology of possibilities and challenges through which one can navigate, equipped with the means to operate in uncertain conditions.

2.1. Visionary adaptation

> I want to clear a space for a scenaric stance that holds best case and worst case scenarios in mind at once. This is the way to face our unpredictable future responsibly. This is the way to grapple with uncertainty and act nonetheless.
> –Jay Oglivy (Ogilvy, 2011)

Future preparedness calls for a familiarity with manifold scenarios and models of change, as well as an ability to navigate between them (Miller, 2011; Ogilvy, 2011). "Visionary Adaptation" suggests a need to clarify when different responses to change might be appropriate (Gupta, 2009). Visionary adaptation implies a way to balance long-term visions with the short-term responses to crises such as adaptation, resilience or revolution. How can we keep preferred futures alive, while at the same time responding appropriately to current change? The answer lies in tighter feedback between vision and adaptation, where knowing how to respond to a situation emerges from iterative prototyping of a wide range of futures.

Visionary adaptation shows that there are responses to uncertainty that go further than adaptation or resilience, towards what Nassim Nicholas Taleb calls "antifragility" (Taleb, 2012). An antifragile system (such as evolution or the airline industry) grows stronger when faced with uncertainty and adversity. For example, the media service Netflix uses their "Chaos Monkey" to perform intense randomised stress-testing of infrastructure in order to prevent catastrophic failure. "By building a server architecture that expects failure, the system as a whole can learn how to withstand bigger and tougher obstacles even if they don't know exactly when or how they will occur in real life." (Benson, 2013)

Chaos Monkey is to server infrastructure what disaster drills are to social systems. They are usually organised on a large scale by the military or government agencies in charge of disaster response. Examples include the NNNI (Ništa Nas Ne smije Iznenaditi, or Nothing May Surprise Us), nation-wide "societal defence and self-protection" drills in the former Yugoslavia, or the Zombies used by the CDC in the USA to raise awareness about the need for hazard preparedness (Office of Public Health Preparedness and Response, 2015). These doom-scenario exercises are developed to inculcate necessary skills and attitudes required for a prompt response in a crisis situation such as war or an epidemic. The idea is not necessarily to prepare for a specific disaster, but to cultivate behaviours, insights and reflexes applicable in catastrophic situations. Skills can be learnt, tactics and strategies memorised, but they can only be tested in complex, messy situations as close as possible to reality. In such situations participants are required to act, react and improvise to put their skills into practice. Not only do they learn what they can and can't do, they experience their reactions emotionally, physically and mentally. During disaster drills, participants play out responses to a possible future and learn from their experience. Even if they know that a Zombie plague is highly unlikely, experiencing the actions, thoughts and reflexes improves the participants ability to deal with the threat of infection in a real crisis.

While drills for potential disasters have become an established practice, there aren't many examples of drills or exercises for other, less disastrous types of futures. Disaster drills may be good for training short-term tactics and responses, but don't usually examine long-term visions. War games and military simulations can be appropriate for teaching strategy and planning but are less well suited for civilians. Drills designed for future preparedness would ideally incorporate a multiplicity of futures (preferred and otherwise) and a layered approach to time. They would require short-term tactics as well as adaptive long-term strategies. Testing alternative or preferred futures through experiential exercises can foster feedback-loops between ideas and experiences, encouraging a non-deterministic attitude leading toward a visionary adaptation.

> "You've got to learn your instrument. Then, you practice, practice, practice. And then, when you finally get up there on the bandstand, forget all that and just wail."
> –Charlie Parker

2.2. Inhabiting uncertainty

> "The most calamitous failures of prediction usually have a lot in common. We focus on those signals that tell a story about the world as we would like it to be, not how it really is. We ignore the risks that are hardest to measure, even when they pose the greatest threats to our well-being. We make approximations and assumptions about the world that are much cruder than we realize. We abhor uncertainty, even when it is an irreducible part of the problem we are trying to solve"
> –Nate Silver (Silver, 2013)

If we can take for granted the plurality of futures, the inherent uncertainty of prediction and that the target of futures studies is inevitably situated in the present, we can work with these multiplicities in the here-and-now; in a present moment which includes multiple layers of the "long now" – from the "now" of a heart beat, to the "now" of today, to the "now" of an ideology or civilisation. This atemporal perspective of living in a mosaiced overlap of perpetual present moments can help integrate our capacities for hindsight, insight and foresight. Rather than working with futures to create monumental strategies, we see the need to develop foresight as an aptitude attuned to uncertain, changing conditions in the long now. Other aptitudes that take uncertainty as a given include observation, curiosity, frugality, irreverence and equanimity. What can we extrapolate from these aptitudes to encourage us not to shy away from uncertainty, but to inhabit, embrace and evolve with it? What can be learnt from existing dispositions that flourish in uncertainty, such as meditation, play and improvisation?

> "I have realized that the past and future are real illusions, that they exist in the present, which is what there is and all there is"
> –Alan Watts (Watts, 1951)

Perhaps similarly to the layering of time in the long now, meditation techniques can encourage practitioners to see the present moment as something outside (or encompassing) the stream of time (Kabat-Zinn, 2005). Deepening the insight of this "infinite moment" through the practice of meditation necessarily improves observational skills, to better discern minor changes (such as "weak signals") and liminal patterns (such as "trends" and "drivers of change") that co-exist in the present. Furthermore, the non-judgemental attitude that one adopts when meditating can help the practitioner observe their emotional and physical reactions to emergent situations. Introspection and observation developed through meditation allow the practitioner to approach uncertainty consciously and make choices beyond instinctual reactions to fight, flight or freeze (Chödrön, 2003; Kabat-Zinn, 1991). For someone who meditates, being immersed in uncertainty provides an opportunity to develop faculties of mindfulness and equanimity and should therefore not be avoided, but embraced and inhabited.

A very different approach to uncertainty is play. A playful or irreverent disposition toward uncertainty can lead the players in unexpected directions and thereby away from inevitability and the extrapolation of existing biases. While playing, the participants tend to be in a state of high emotional anticipation, absorbed in their present actions and interactions, immersed in their immediate surroundings:

> "Play is an activity which proceeds within certain limits of time and space, in a visible order, according to rules freely accepted, and outside the sphere of necessity or material utility. The play-mood is one of rapture and enthusiasm, and is sacred or festive in accordance with the occasion. A feeling of exaltation and tension accompanies the action."
> –Johan Huizinga (Huizinga, 1970)

Not much is certain while playing, entire worlds can be created and destroyed yet the players can emerge (relatively) unscathed. Unstructured play is an ultimately heuristic endeavour, where players willingly throw themselves into the deep, making and breaking the rules as they go along. There is a unique combination of lightness (Calvino, 1996) and seriousness in play that is essential for thriving in uncertainty. When players hold reality as lightly (yet earnestly) as when they play, they can open up a range of possible futures that may not be so readily accessible through the usual channels of consensus reality.

Similar to play, improvisation approaches problems from the basis of previous experience and intuitive responses. In theatre and the performing arts, improvisation relies on spontaneity and synchronicity to resolve uncertainty on the spot. Dramatist Keith Johnstone warns that we "mustn't try to control the future" (Johnstone, 1987) during improvisation. Instead, he says, we should rely on (and improve) our skills of observation and interaction. Bertold Brecht trained his actors to think on their feet by suggesting that "we should agree to discuss nothing that could be acted out" (quoted in Johnstone, 1987). Improvisation provides insights into intuitive and habitual responses to a situation, as well as the thrill of being able to shape the evolution of the situation through direct experience. One of the key elements of successful improvisation is that the participants can trust and build on each others actions. Experience of uncertainty can become less threatening when approached from such an amenable, pro-active perspective.

Meditative, playful and improvisational attitudes thrive in uncertainty. They inhabit it without worrying about the past or the future. They could be seen as counterpoint to strategy, which tends to focus on risk assessment and careful adherence to a plan. However, inhabiting uncertainty does not imply indecision nor does it eliminate the need for planning and analysis. Instead, it offers different types of adaptive, real-time and experiential decision making processes (from "stochastic tinkering" (Taleb, 2012) to structured techniques such as "Discovery-driven planning" (McGrath & MacMillan, 1995)). It invites us to hope, anticipate and openly explore (im)possible futures.

> "In postnormal times, the world has both centrifugal and centripetal tendencies: transcendence and collapse; integration and fragmentation. History didn't end with Fukuyama. Collapse contains the fractal seeds of transcendence. Things come together as they fall apart. Ours is not the flat world of Thomas Friedman, but the 'unevenly-distributed' future of William Gibson. It has contours. [...] In this context, our best weapons are imagination, creativity, and a recognition of the sheer contingency of the times in which we find ourselves."
> –Justin Pickard (Pickard, 2012)

3. Experiencing futures

Experiential futures could be seen as a foresight-centric response to future preparedness. It is an attempt to bring the worlds of tomorrow into the present in a way that can be experienced directly. In the absence of functional time-travel, such attempts rely on more mundane techniques borrowed from theatre, design or psychology, including speculative artifacts, videos, interactive installations, games or "guerilla" interventions in public spaces.[1]

[1] Some contemporary examples include works developed by the Situation Lab, Changeist, Superflux, Strange Telemetry, The Near Future Lab, Arne Hendriks, Extrapolation Factory amongst others.

> "The design and staging of experiential scenarios is a political, practical and perceptual-level intervention. It is praxis oriented and more than a little messy; a tactical attempt to manipulate the quirks of the human information processing system, especially our evolved preference for the immediate and tangible over the remote and abstract, to give those quirks a better chance of operating in our collective long-term interest, rather than against it."
> –Stuart Candy (Candy, 2010)

Experiential futures suggest ways to develop knowledge (and eventually wisdom) from abstract data and information through interactive experience (Shedroff, 1999). By stimulating affective responses it provides a means to align present actions with holistic, long-term perspectives. Along similar lines, Miguel Pina e Cunha and his colleagues propose a "real-time foresight" which builds on the art of improvisation; "Traditional foresight consists of the planning/acting sequence, while improvisation conjoins planning and action." (Cunha, Clegg, & Kamoche, 2012). The notion that futures can be played and improvised in the present enables iterative analysis since ideas are actively prototyped, tested, improved or discarded. As such, experiential futures can provide an antidote to apathy, disinterest and fear, which seem to be common responses when faced with the uncertainty of an ominous, singular "Big Future".

> "Knowledge about the future shouldn't be an overly abstract concept lacking relevance, but rather an inspirational call to action with traction"
> –Jose Ramos (Ramos, 2002)

Immersive improvisation can take futures outside the comfort zone of words, text and displaced responsibility. Hearing or reading something doesn't penetrate as deeply as the understanding gained through experience. To truly know the world we need to engage with it through situated interaction (Merleau-Ponty, 2002), using our minds, as well as bodies with their intricate systems of embodied and enactive cognition (Varela, Thompson, & Rosch, 1991; Wilson & Foglia, 2011). It would follow that an understanding of futures may also require more than words, no matter how well researched and crafted they may be. Therefore experiential futures have the potential, or perhaps even a responsibility to (re)connect rational analysis, abstract speculation and embodied knowing.

3.1. Multiple ways of learning, knowing and understanding

If the desired outcomes of experiential futures include multiple ways of knowing and an improved capacity for action, so too should the process used in the research and creation of such experiences. There are numerous fields that practitioners can draw upon to help design these processes. Different approaches will "have distinguishing strengths . . .[y]et none by itself is really a 'perfect', all-purpose approach . . .The primary lesson we have learnt . . .is the value of mash-ups: combining and layering different techniques to enrich outcomes." (Curry & Schultz, 2009)

At FoAM we encourage a broad, transdisciplinary, cross-cultural foraging of techniques and methods, allowing us to adapt to working in a range of different contexts and with people from all walks of life. In our (experiential) futures experiments we combine methods from futures studies with those from other disciplines. Scenario thinking (with the plethora of available scenario methods), futures workshops, horizon scanning, mapping and analysing change drivers and weak signals can be complemented with approaches from different fields, including for example:

- Participatory process facilitation,[2] collaborative innovation and coaching to move beyond circular critique of the status-quo and towards participatory envisioning of alternatives.
- Learning journeys (e.g. Adaptive Edge, 2011), visual ethnography and field-work as experiential forms of research;
- Techniques from clinical psychology such as role playing and psychodrama (Blatner, 1996), as well as flow (Csikszentmihalyi, 2002) and transpersonal psychology (Grof, 1985) to prompt interaction and engagement;
- Performing arts, in particular historical re-enactments (Lütticken, 2005) and improvisation (Johnstone, 1987) to encourage spontaneity and immersion;
- ARGs (Alternate Reality Games)[3] and larps (Live Action Role Playing games) (Stark, 2012; Stenros & Montola, 2010) to stimulate the imagination of how things could be otherwise;
- Interactive installations, transmedia storytelling and physical narratives (Time's Up et al., 2013) to create mixed reality environments;
- Experience design and prototyping (Buchenau & Suri, 2000) to learn from iterative experiments;
- Dance, butoh, yoga and martial arts to enhance the physicality of the experience;
- Disaster drills, war games (Cornish, 2005) and negotiation simulations (Fisher & Shapiro, 2006) as examples of experiential prototypes for possible futures;
- Even ancient techniques from futures' pre-history (Schultz, 2012), such as divination, invocation and visualisation (Cuhls, 2014) can be used for probing the participants' associative and unconscious responses, or as wild cards to shift the atmosphere.

[2] Hosting as practiced at FoAM: http://lib.fo.am/hosting_craft.
[3] Some notes can be found at http://lib.fo.am/parn/alternate_reality_games_tutorial.

Combining such a disparate range of techniques in a futures exercise can extend the predominantly analytical strategic foresight methods to incorporate the benefits of multimodal learning and understanding (e.g. critical, emotional, provocative, creative, etc.). The process and results are interrogated from different directions, and each modality used to inform others. Whichever tools are chosen, they should encourage open, non-hierarchical conversations.

Selecting appropriate techniques depends heavily on the practitioners' and participants background and the context in which they're operating. In FoAM's futures experiments we aim to surface preconceptions, patterns of thought, behaviours and actions - the lenses that can influence and shape the participants' experience of the world around them. By making them apparent, they can be discussed and perhaps become more malleable. We find it important to make explicit that both participants and facilitators shape the process and its outcomes, and that our intentions and assumptions will influence the results. This approach shares some similarities with "Integral Futures" as proposed by Slaughter (2008). In the words of Floyd, Burns and Ramos: "Methodology, though, is about more than the tools used: it involves careful attention to the stance taken by the practitioner in the use of tools to enact knowledge and understanding" (Floyd, Burns, & Ramos, 2008). Not only can different methods steer the process towards particular types of outcomes (Curry & Schultz, 2009), but holding onto any particular methodology too tightly can disrupt the flow of the process itself. Rather than imposing a top-down methodology, a practitioner can prepare a methodological framework beforehand, which is then adapted through observation and interaction with the group dynamics. The resulting processes tend to be a collage of techniques that speak to a range of different people and can collect various responses and insights into a coherent whole.

4. Prehearsals & pre-enactments

Our experiential futures work focuses on creating immersive situations with an emphasis on human–human and human–environment interactions, connections and relationships as they evolve over time. We introduced the terms "prehearsal" and "pre-enactment" to describe these embodied experiences where future scenarios can be explored and stress-tested by subjecting them to the randomness of social improvisation in an immersive setting (Kuzmanovic & Gaffney, 2013, 2014). FoAM's experiments in "speculative culture"(Icon, 2009) can be seen as rehearsals for futures that may come to pass, or as enactments of the possible. Any images of the future that arise from these experiments are necessarily influenced by the participants' beliefs and knowledge rather than being primarily based on data originating from detailed research. What these images may lack in perceived accuracy or objectivity, they gain by providing subjective insight into the lives and paths of the people involved.

There are no spectators in prehearsals and pre-enactments, only participants. The initial conditions generally include a predefined backstory (to establish a context), a set of rules, a location and a time-frame, however the characters and events are created emergently by those involved. The participants are invited to imagine who they would become and what their life would be like in the pre-enacted future and to act accordingly. They gain insight about themselves, about their interactions with others and about the group as a whole (be it an organisation, company, family or community) as they experience a possible future. This embodied experience helps to surface existing strengths and weaknesses (of people and situations) as well as bringing out the most interesting and valuable aspects of a scenario.

The difference between prehearsals and pre-enactments lies in their duration and complexity. Prehearsals are short improv exercises that can be self contained, or incorporated into a wider process. Pre-enactments are larger scale and longer term productions, which include more detailed worldbuilding and often the speculative design of props, costumes or accessories (e.g. prototypes of technologies or media). They are usually self contained and demand more of a commitment from the participants in terms of time, creativity and attention.

A prehearsal is an improvised situation of short duration (generally less than an hour), a quick-and-dirty test of an instance of a scenario that focuses on the player's behaviours and interactions using minimal props and setup. It can be incorporated into a scenario workshop to test or prototype the narratives (what Schwartz calls "rehearsing the future" (Schwartz, 1998)). The prehearsed situation should be familiar enough to the participants that they can focus on the content rather than the form of the prehearsal. For example, the situation could be a reception, press conference, train ride, a coffee-break or anything else that can provide a context for the core question the group is exploring. The challenge for the participants is to place themselves in this familiar situation, while also imagining that it is happening in a specific possible future.

Pre-enactments are inspired by large-scale larps and re-enactments,[4] but rather than enacting an historical or fictional situation, the participants pre-enact a situation that may exist in their future. During a pre-enactment, a scenario comes to life as a "first-person experience". Participants can explore what their life might be like in a specific possible future. In order for the experience to be believable, the broad strokes of a scenario need to be filled with the mundane details of daily life, which can include things like food, clothing, tools, work-spaces, interfaces, events, rituals, etc. Elaborating an experience in such detail can help point to inconsistencies between the ideas in the scenario and the gritty reality, between the images of the future and their embodied manifestations.

[4] for example the annual re-enactment of the battle of Waterloo, https://www.waterloo2015.org/en.

4.1. Creating prehearsals & pre-enactments

At FoAM designing a prehearsal or pre-enactment [5] starts with co-creating a range of scenarios. Depending on the needs of the group we tend to work with a patchwork of qualitative approaches (which can include STEEP analysis, 2 × 2 double uncertainty, CLA, Four Generic Futures, The Manoa Approach or the Futures Cone for example) as well as other techniques from design and storytelling.[6] The scenarios are translated into short backstories, which describe enough of the context, atmosphere and physical setting for the participants to be able to temporarily inhabit the scenario. The practical details of the exercise are usually summarised in a script (aka *The Survival Guide*) which includes instructions, questions, rules and guidelines. The facilitators can either design the backstory and the script themselves, or co-create them with the participants. The main benefit of co-creation is stronger commitment of the people involved, while one of the drawbacks is that it is more time and resource intensive.

Once a prehearsal or pre-enactment begins, the participants are encouraged to stay in the role of their future selves for the duration of the experiment and immerse themselves in the situations that unfold. In other words, they step into a "the magic circle" (Huizinga, 1970), an arena in which play unfolds that is clearly separated from ordinary life in both time and space. Once the players step over the threshold, different rules apply, ordinary actions acquire a special meaning and the players are invited to explore and experiment within its confines.

During the prehearsal or pre-enactment the participants are invited to behave *as if* they temporarily exist in the future they're enacting. This means that you act as yourself – not as a character or a superhero, but as you, with all your strengths and weaknesses and unique quirks. While exploring the scenario, you play out your speculative role in that specific future. You enact who you might become, what you might be doing, how you might get there, given what you know about yourself and the scenario. As you improvise, you observe how you react to other people and the situation as a whole, as well as how your actions affect them. By experiencing a (sometimes uncomfortable) scenario *as if* it was real, the pre-enactors can develop their situated introspection and adaptation skills while expanding their understanding of the enacted scenario. The deeper the immersion, the more valuable the experience. While it may appear like a casual role-playing exercise, pre-enacting futures can be quite demanding.

The discomfort, elation and fragility that can emerge during pre-enacting are best situated within a comfortable and familiar context, with a well defined transition before and after the experience. The experience itself may be confronting, so it is imperative for the participants to have a safe space where they can share and understand the implications. In order for a prehearsal or pre-enactment to have sustained, long-term effects, an in-depth debrief and reflection phase is needed to translate insights into applied learning. It is worth noting that the beliefs and assumptions on which the participants base their scenarios can change drastically during and after experiencing an immersive situation based on that scenario. We therefore find it beneficial to revisit and adapt the scenario narratives after experiencing them.

The role of a facilitator in prehearsals and pre-enactments is akin to a "game master" (Stenros & Montola, 2010) in role-playing games, tasked with arbitration, moderation and managing the (narrative) flow. The facilitator keeps the participants in the "magic circle", through prompts and suggestions. These tasks are usually performed in-character, in-world, consistent with the backstory. Therefore, some experience with role-playing, larp, improvisation or other forms of performing arts can be beneficial.

Both prehearsals and pre-enactments can be considered as complementary to other futures techniques. While they provide embodied, experiential learning, they can't replace analytical research or strategic planning. Experiencing a scenario is most useful after the participants have examined the past and present situation, identified emergent forces of change and created coherent scenarios. Experiential futures strengthen the engagement and interaction with scenarios, but the experience needs to be analysed in order to draw meaningful conclusions. After going through a prehearsal or pre-enactment, techniques such as ethnographic interviews, backcasting and scenario testing can be used to translate experiential insights into "early warning systems", as well as concrete actions and measures that can be implemented in real life.

4.2. Experiential futures experiments

The insights presented in the previous sections are derived from observation and informal evaluation of our practice-based experiments, primarily in the field of arts and culture.[7] In this section we describe a few recent examples.

Food Futures (FoAM, 2014a) was an exploration of how relationship between food, health and the environment could develop in alternative futures. We designed scenarios using "four generic futures" (Dator, 2009), based on qualitative analysis of horizon scanning data, and CLA (Causal Layered Analysis, Inayatullah, 2004) of the key driver clusters. The scenarios were translated into menus composed of ingredients assumed to be challenging or abundant in each extrapolated context. During the Edinburgh Science Festival we hosted a multi-course "gala dinner", each course composed of foods from

[5] For a step-by-step guide to designing and facilitating prehearsals and pre-enactments see: http://lib.fo.am/futurist_fieldguide/pre-enactment, http://lib.fo.am/futurist_fieldguide/prehearsal and FoAM (2015a), Kuzmanovic and Gaffney (2013, 2014).

[6] For an overview of techniques and methods used in our workshops see: (FoAM, 2015a).

[7] Examples of our approach to documentation of process and outcomes can be found at http://lib.fo.am/future_fabulators/scenarios.

the alternate futures. Locally foraged wild garlic soup for the Discipline scenario, or potato-peel chips with fermented seaweed in the Collapse scenario for example. Each course began with a short speech by delegates from different futures. These speeches introduced a series of issues, questions or conundrums for the diners to discuss while eating and drinking in a convivial atmosphere. They took notes on the table-cloths, they argued, they made new friends and extensively explored the implications of each scenario. In another instance of *Food Futures*, at the opening of the *Future Fictions* exhibition at Z33 in Hasselt, Belgium,[8] the four scenarios were adapted to a different season and location and translated into a flow of finger-foods and drinks for a standing reception. In an adjacent lab and reading room, the process of creating the *Food Futures* menu was visualised and described. On both occasions presenting abstract futures as "edible" improved engagement and provided a participatory context for lively, in-depth discussions.

Borrowed Scenery (FoAM, 2012) was a story about an alternate reality (past, future or parallel) in which plants formed a central aspect of human society. By "borrowing" (Takei & Keane, 2001) the setting of everyday life in the city, it attempted to infuse habitual activities, such as walking or eating, with a vision of a future where insatiable economic growth is superseded by an atmosphere-based economy in which nature has a voice. It was interesting to observe that some of our visitors saw the backstory of *Borrowed Scenery* as science fiction while others accepted it as a compelling vision of a possible and desirable future (a "wild card" normative scenario). Using backcasting we connected the scenario to existing people and initiatives already committed to realising (parts of) that future. Storytelling techniques from ARGs helped us to weave a coherent world together, from the elements of our speculative scenario with real people, places and activities. *Borrowed Scenery* evolved over two months in Ghent, Belgium and online. It revolved around a speculative "patabotanical lab" populated by fictional characters who gradually became known through their physical traces (letters, library, fieldnotes, abandoned tea-parties, etc.) and an online game. FoAM collaborators functioned as their "research assistants" who recruited members of the public in their fieldwork, expeditions and experiments. These included an expedition through the city as an edible resource, a master-class in HPI (human–plant interaction), the Viriditas choir performing in a botanic garden, etc. The events combined contemporary concerns, examples of existing methods and speculative alternatives, in an irreal, but not impossible fictional world. It provided a place for guided discussions and offered a range of multi-modal entry points for professionals and curious audiences alike.

Futures of Doing Nothing (FoAM, 2014b) is a way of exploring the negative space around the "Future of Work" and the concerns surrounding unsustainable contemporary work practices (Kuzmanovic & Gaffney, 2015). It took shape as a workshop and series of pre-enactments, which used CLA to investigate the deep societal and cultural causes beneath the malaise of work- and stress-related illnesses. After finding the myths beneath the litany, we ascended the causal layers to explore alternative myths, worldviews and systems. We described a preferred future in which productive work and idleness co-existed to create a fairer, more sustainable society. Each participant wrote personal anecdotes describing the world in a journaling exercise. As a simplified form of backcasting, they designed a set of personal instructions, which – if applied in their daily life – could begin to steer their quotidian routines towards their desired future. At the end of the workshop we held a prehearsal in the form of a reunion. The participants imagined having lived in their preferred future for ten years, and were returning to meet each other again. The conversations provided fertile material for several longer-form personal pre-enactments. In these pre-enactments we guided the participants through an experience of living as-if they had already become their future selves in situations involving unsuspecting bystanders. For example, one participant created a public "lab for rituals" for a day. Her insights from the pre-enactment were translated into a research project and further public experiments. Supported by FoAM, she has since been actively transforming her professional life into a manifestation of her preferred future (Raes, 2015) and has recently started a company to design rituals for unacknowledged loss. In a way, *Futures of Doing Nothing* could also be seen as an exercise in "sympathetic magic" (Frazer & Fraser, 1994) invoking aspects of alternative futures in the present.

Lucid Peninsula[9] (Time's Up, 2014) applied the KPUU framework (Silberzahn & Jones, 2012) and CLA in the creation of a fictional storyworld with roots in the real problems of environmental pollution and destructive techno-social archetypes. Both the process and the results were designed to encourage a state akin to lucid dreaming. We used futures techniques as worldbuilding devices, combining them with improvisation, storytelling, design thinking and surrealism to create a rich fictional world. Stories from this world were used to develop a range of experiential prototypes; a physical narrative (Time's Up et al., 2013), an interactive installation and HCI demo (Dionisio et al., 2015) and a set of cards for a self-guided prehearsal, that extended the work in unanticipated directions.

We have also experimented with varying short-form prehearsals, less involved than the previous examples, but no less effective. These prehearsals were incorporated into futures workshops in order to include aspects of experiential learning in the process. For example; a prehearsal involving a series of interviews and future research agendas was used to help an academic institution find a suitable research chair; in a session with environmental NGOs we held a prehearsal that involved working with antagonistic stakeholders in order to improve the relevance and feasibility of their initiatives; in a workshop looking at improving sustainability of a suburban residential estate, a prehearsal with the inhabitants consisted of designing a future edition of the neighbourhood newspaper and an event where they confronted local authorities with concrete alternatives, in words, staged photographs, food and drinks which reflected their preferred futures (FoAM, 2015b).

[8] Z33 House for Contemporary Culture. Some details can be found at http://lib.fo.am/future_fabulators/future_fictions.
[9] A collaboration between Time's Up, FoAM, M-ITI and AltArt.

4.3. What have we learnt so far?

Between 2011 and 2015 we have conducted 15 prehearsals and 6 pre-enactments. The number of participants per session has varied from 1 to ~50. The benefit of conducting these exercises with small groups is that participants can be directly involved in the whole process of scenario planning and worldbuilding, which can contribute to their sense of agency and depth of involvement. Although we have not yet conducted experiments with large groups, both larps and disaster drills can be designed to accommodate thousands of participants, which leads us to assume that prehearsals and pre-enactments could certainly be organised on a larger scale.

The participants' age ranged from 18 to ~65 and included people from varied backgrounds, including cultural organisations, environmental NGOs, academia, a residents' association, artists, designers, engineers, scientists, students and general audiences. We observed that the more diverse the groups were, the richer and less polarising the scenarios tended to be, incorporating multiple perspectives.

The participants frequently reported that experiential learning provided them alternative (often unexpected or overlooked) insights into the issues at hand – from "Aha!" moments during the experience to recognising subtle signals in their life and work afterwards. To capture these insights, where appropriate, we documented the experience with video, interviews or written reflections. This material can be used by the participants to strengthen their understanding, or to present the process and its results more widely if required. Time and resources allowing, insights from the experience can be made public through scenario narratives, process descriptions or design fiction artifacts for example. However, we have noted that effect of the secondary material is often less profound than the impact the experience has on the participants themselves.

We found that the more directly relevant the issue is to the participants the more engaged they tended to be, regardless of age, social status or education. Not only would they be more engaged with the simulation, but were keen to translate experiential insights into actions, tactics and strategies that were followed through after the experience. We would suggest that prehearsals and pre-enactments are most significant in occasions when the issues are urgent, important, complex, and likely to have direct impact on the lives of the people involved in the exercise.

Scenarios that are closer to the present tend to be easier to inhabit, and perhaps more useful to enact than far future scenarios, which usually appear as caricatures of sci-fi novels or fantasy games. In "normal everyday ordinary future" (Near Future Laboratory, 2014) and near future scenarios the participants are better able to reflect on the prehearsal experience as pertinent to their lives in the present. Far-future or abstract world-scale scenarios generally require more speculation, which often leads to assuming fictional characters and forgetting parallels with the present situation. In which case the exercise may become closer to speculative fiction, rather than a (self)reflexive experience. While speculative fiction can be a valuable way to represent futures, prehearsals and pre-enactments tend to have more long-term impact on the participants' insights and behaviour if the experience is recognisable from the viewpoint of their present life.

Improvisation and the performative nature of the technique provide both opportunities and challenges. While it requires no special skill or knowledge from the participants, it does demand a full commitment to the process. Participants are asked to assume an improvisational attitude, which includes openness, (self)awareness, playfulness, introspection and adaptability. For some participants this can be uncomfortable, which can result in lack of immersion in the experience (and as a consequence an inability to learn from it). Some people find embodied improvisation too far outside of their comfort zone to even try. In such cases short improv exercises can provide stepping stones into the experience.

We found that one of the central challenges of prehearsals and pre-enactments lies in managing the threshold between real life and "the magic circle". A participant may be unable to "see" the threshold as an entry-point to an alternate state, disrupting the experience for others. Similarly, if a participant remains on the threshold – even though they may agree to participate, they don't (for various reasons) engage with the experience. Problems can also arise when participants start playing another character as they cross the threshold, rather than remaining themselves. Alternatively, a participant can cross the threshold and end up somewhere else, in a different world from the other players. In all cases the result tends to be that the participants "break the world" for themselves and others.

We have not yet found general solutions to these challenges. As each group we have worked with responds differently there may be no clear-cut answers, no linear paths to success. Considering that it is difficult to know who will react in which ways, we try to prepare participants beforehand using various creative techniques. Conducting individual or group exercises (guided journaling, improvisation, role-playing, meditation, visualisation, etc.) can help ease participants into both the form and content of the experience. Deciding on particular roles, tasks, activities or other actions where the participants can prepare to "do" something specific can help as well. Setting the scene in a familiar situation can help, since participants already know how to behave. Having a physical "threshold" that the participants cross (a costume or accessory for example, or a simple ritual as they enter and exit) demarcates the magic circle and gives the participants "permission" to step into their future selves. Having experienced improvisers as facilitators, game masters and/or participants can help with initiating and guiding emergent situations. Finally, the challenge of experiential engagement can be tackled by embedding the experience in a comprehensive futures process, where it can enrich multi-modal and multi sensory learning.

5. A lab approach to everyday futures

This paper begins by describing the need for a widespread futures literacy that would enable people to attune to uncertainty without abandoning visions of their preferred futures. We propose that experiential futures, along with a range

of complementary approaches from other fields can contribute to a futures literacy by prototyping speculative scenarios in the present. Prehearsals and pre-enactments can be seen as examples of an experimental "lab approach" to futures in which a futures literacy evolves through cycles of iterative development. By consciously navigating between abstract speculation and embodied actuality, images of the future are continuously re(de)fined through experiential learning, testing and evaluation.

> "This is a unique kind of laboratory – one that creates a dialogue, listening carefully with an open mind to all the voices, and then tries to translate them, mix them, and amplify them to prototype and develop alternatives." –Labcraft (Tiesinga & Berkhout, 2014)

Entangling experiential futures into the fabric of everyday life is no small task. There is substantial transdisciplinary study and field-work necessary to explore applicable theories and practices. We are only at the beginning of investigating how experiential futures techniques – such as prehearsals and pre-enactments – can become more effective and more applicable across different scales and contexts. We are interested in taking both the simplicity and complexity of these experiments to their extremes; from designing pre-enactments at larger scales and longer durations to working with individuals to develop personal, daily *ambient foresight* practice. Further experimentation is required to resolve the threshold problems between real life and the magic circle of simulated experiences. We assume that a better understanding of expectations, presumptions, mental and emotional frameworks (that participants bring to any exercise) can help to improve both engagement and commitment. This would also suggest further investigation into the difference between learning from representation or performance (Sha & Kuzmanovic, 2000). The evaluation and analysis of experiential futures (both methods and results) is another extensive topic in need of research that could help shed light on the perceived benefits of experiential approaches. We believe that sharing, studying and testing of tools and techniques (experiential or otherwise) is key to a more widespread futures literacy and we continue to develop and invite contributions to the *Futurist Fieldguide* (FoAM, 2015a).

> "Futures research and knowledge should not be the preserve of a select number of institutionally privileged teachers and researchers that have access to ridiculously expensive journal subscriptions.[...] Futures research and knowledge is meant for the world. [...] for humanity to thrive if not survive in the 21 century we will not just need a global knowledge commons, we will need a global foresight commons."
> –Jose Ramos (Ramos, 2013)

There are many other threads that this paper touches on an alludes to which could benefit from a more in-depth investigation. Considering the breadth of futures studies and our peripheral involvement in the field, there are certainly things we have overlooked, rediscovered or misunderstood. We believe that it could be beneficial to explore connections with more traditional foresight approaches as well as experimental futures methods. We are therefore keen to explore further collaborations.

While futures studies provides a wide array of research and practice, especially the field of experiential futures would benefit from more in-depth interaction with other communities dealing with related subject matter, which could include improvisers, experience designers, psychologists, ethnographers, tech-pioneers, post-capitalism activists, process facilitators, experimental communities, speculative fiction writers or speculative realists. Transdisciplinary processes and multicultural contexts are key to experiential futures having substantial impact on the people involved, if the aim is to entangle the futures we imagine into the lives we are living to such extent that strategic foresight is transformed into ambient foresight. Until "unshocking the future" (Smith, 2014) becomes an integral part of quotidian practice; until an everyday future consciously emerges from subtle changes in daily life; and until possible futures are brought within everyone's reach and appear as tangible and pliant as they really are...

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