
Reflections on teaching design fiction as world-building

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Abstract

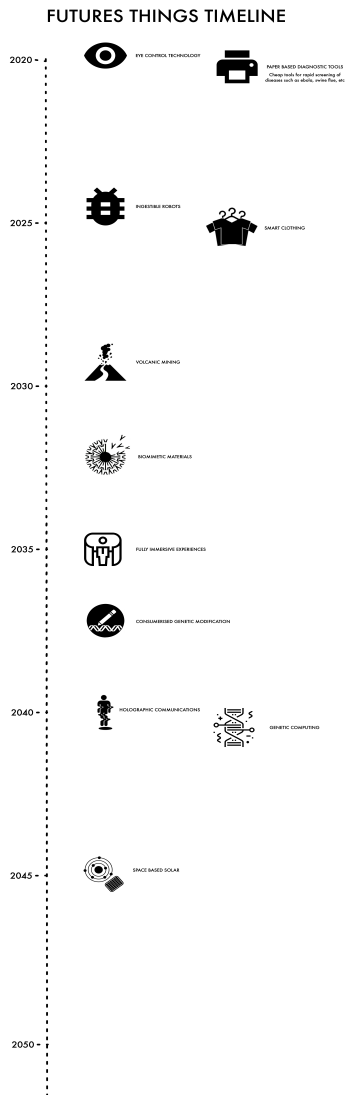
Over the last 3 years I have the pleasure of teaching a final year undergraduate design studio in which students are required to consider the potential futures of emerging technologies. In particular they are expected to approach this as an exercise in design fiction as world-building. The emphasis of the approach is to render the future mundane in that the artefacts produced are not expected to adopt the elaborate, and oft dystopian, exhibition orientated approach of critical design, but rather to subvert the formats and tropes of the technology industry. Further the approach seeks to avoid the polarization of utopian or dystopian but instead embraces the messiness of our lived realities. I not seeking to offer any disambiguation of what design fiction is or how it should be done but merely offering my reflections on research led teaching which might be useful to others.

Author Keywords

Design Fiction; World Building; Design Futures.

CSS Concepts

- Human-centered computing ~ Human computer interaction (HCI); HCI theory, concepts and models



Introduction

This paper is my personal reflection on our final year undergraduate (UG) Design Studio on Design Futures with an emphasis on utilizing Design Fiction as World-Building [1] as the principle approach. This approach has been developed through the various research activities relating to Design Fiction at Imagination Lancaster and as such represents a particular viewpoint of this speculative practice that is considered in a wide variety of ways. In this paper I am not seeking to disambiguate the discussion around what design fiction is, or offer world building as a preferred option, but I will contextualize how this approach has evolved from my perspective as this enables others to contextualize why I have approached the studio with our students in this particular way.

Design Futures

Considering the future is generally seen as an integral part of all design activity. If students are expected to design futures they need a way to first consider what type of futures they may wish to represent. This is often presented through the much hyped futures cone [2] that considers futures as scenarios based on qualifiers, probable, plausible, possible, and preferable. As these qualifications are subjective they are open to interpretation but could be considered as: possible – might happen, plausible – could happen, probable – likely to happen, and preferable – should happen.

A problematic feature of the futures cone is that it fails to acknowledge the influences of the past. Marshall McLuhan famously said “We look at the present through a rear-view mirror. We march backwards into the future” [3]. This serves as a reminder of the significant influences of the past, and indeed fiction [4], has on

our perception of past, present and the future. Further, we should acknowledge that there is no universally accepted view of the past, present or future or indeed the distinction between probable and plausible, but rather these are individually constructed to create a particular reality. This leads to the major issue with the qualifier preferable in that it effectively privileges the creator of the future scenario potentially promoting elitist views of a ‘better world’ if not accompanied by a critical reflection on question preferable to who and why? Reflecting this discussion, the students are presented with our alternative to the futures cone as shown in Figure 1 [5] which provides a more nuanced lens through which to consider futures.

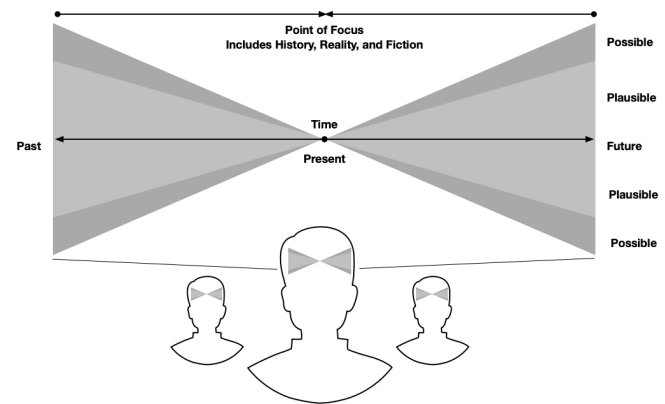


Figure 1: Designing Futures

Moving on from this consideration of futures students need a means through which through might practically consider futures and in particular for this studio the adoption of emerging technologies with various stakeholders and render these futures as mundane as

Figure 4: Initial Futures Timeline 2020 which the students augment in first week



shown in Figure 2 (extended from the work of James Auger [6]).

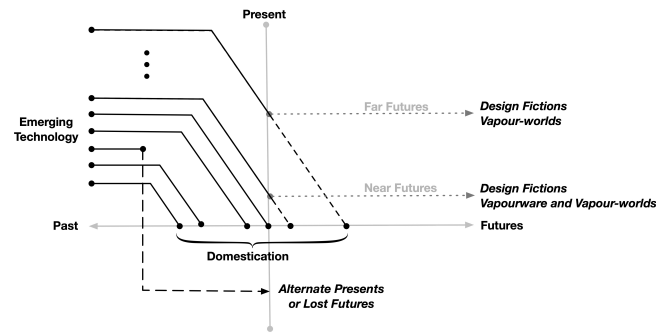


Figure 2: Rendering Emerging Technologies as Mundane

A particular feature of the Design Fiction as world-building approach is not to produce artefacts for exhibition in galleries and museums [ibid] but rather the appropriation formats commonly used by technology company's product videos, device documentation, manuals, patents, etc. to create plausibility [7]. It also draws upon the traditions of vapourware and vapour-worlds deployed by technology companies as representations of the future both of which predate radical design, critical design, speculate design, and design fiction.

Vapourware is a term used to describe software and hardware that is announced, sometimes marketed, but is never actually produced. There majority of explanations for why vapourware is produced, unrealistic expectations of technology etc., but it has also been used nefariously by companies to inflate share prices, create extra publicity for their brand, or even deter competitors entering a market [8]. Vapour

worlds is a term we use to describe material produced by commercial organisations which do not seek to promote a particular product but rather a future in which that company and its products are an integral component [ibid].

Design Fiction as World Building

As stated previously the approach presented to the students of Design Fiction as a World-Building activity [1]. Whilst the means of Design Fiction (the objects and artefacts produced by practice) are diverse and varied, the end of Design Fiction is always the creation of a fictional world (ibid).

"Design Fictions are collections of artefacts that, when viewed together, build a fictional world. The artificially built world is a prototyping platform for the very designs that define it, meanwhile those designs reciprocate in kind and prototype the world." [ibid.]

In practice, within a single Design Fiction, the specific selection of forms and media used manifest themselves as a number of standalone artefacts, which together build the world. Two metaphors are suggested for describing how the individual artefacts relate to the world. First, let us imagine a Design Fiction world as a distinct entity, one that we can see the overall shape of, but whose complex internal structure is hidden from view. What we can see, however, is a series of entry points. Each artefact that contributes to making up the Design Fiction plays its role as a metaphorical entry point to the fictional world as shown in Figure 3. The second metaphor, which works in unison with the first, is inspired by Charles and Ray Eames' iconic film about the relative size of things in the Universe, Powers of 10 (<https://youtu.be/0fKBhvDjuy0>). This changing scale is



Figure 5: Future Mundane Exhibition 2018. Feat anti face detection beauty products



a device that encourages the viewer to constantly reconsider the scene being viewed and can be applied to the consideration of Design Fiction worlds and the artefacts that create them. We can think of each individual artefact that constructs the world as a representation of that world, but at a different scale. The artificially built world is a prototyping platform for the very designs that define it, meanwhile those designs reciprocate in kind and prototype the world.

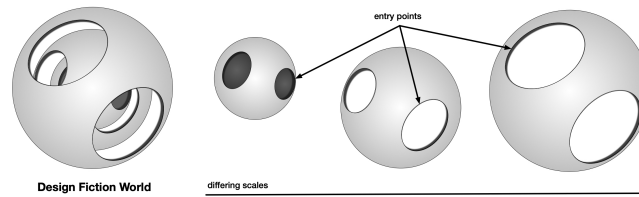


Figure 3: Design Fiction World Creation

Studio Format

Before discussing the format of the studio it is useful to add some context about the School of Design at Lancaster. Initially the school was set-up as Imagination Lancaster in November 2007 to be an open and exploratory research lab whose aim was to create a world leading research driven design school. Teaching started with PhD and MA provision with undergraduate only introduced in 2015. This means the nature of the undergraduate course is very much a reflection of our research culture.

The studio operates over a single term (10 weeks) and is typically timetabled as two formal sessions 9-11am and 16-17 pm. Note we ensure that no other activities for students can be timetabled between these two sessions as students are expected to work the whole day in the studio space. The students were marked not

only on the final artefacts but also through the annotated portfolio produced to document their process. In response to student request they present their artefacts from the module as a mini exhibition that normally runs alongside the final year degree show in which the artefacts are displayed on a giant timeline. Note The students have a 1.5 hr. lecture on Design Fiction as part of their Advanced Design Interactions module, which precedes the studio, that covers the theoretical discussion of the previous sections.

Week 01 – Course Introduction	Research potential emerging technologies Group Development of Futures timeline
Week 02 – Technology Research	Research on particular emerging technology
Week 03 – Technology Research	Expand research beyond technology to include wider potential implications
Week 04 – Artefact Ideation	Develop ideas for artefacts to represents emerging technology as domesticated
Week 05 – Artefact Ideation	Refine ideas for artefacts to represents emerging technology as domesticated
Week 06 – Artefact Prototyping	Start creation of artefacts
Week 07 – Artefact Prototyping	Iterate artefacts
Week 08 – Artefact Prototyping	Iterate artefacts
Week 09 – Artefact Finalization	Finalise artefacts
Week 10 – Artefact Finalization	Complete artefacts

Table 1: Studio Structure



Figure 6: 3D Printed Food 2019



Whilst in the first year I adopted the typical approach of providing a brief at the start of the studio and provided feedback and critique sessions it quickly became apparent during the first session that they required more focused approach in developing world-building experience as they quickly fell into sci-fi tropes developing dystopian fantasies in which emerging technologies played a part. To alleviate this I introduced more structure to the early week activities shown in Table 1 to develop the required research skills that allow them to amplifying the weak signals surrounding not only the emerging technologies but also shifts in societal practices. The initial week is a group exercise to create a giant timeline (2020 template shown in Figure 4) of potential emerging technologies that serves as inspiration for the individual activities of the subsequent weeks.



This revised model and became the template for the subsequent years. In many respects this mirrored the research through design approach we developed which ultimately led to theorizing of design fiction as world building rather than story-telling.

Outcomes

The artefacts produced for this have been many and varied and it is impossible to full justice to them within the limits of a paper. However, Figures 5-8 provide a glimpse of a few and highlight the essence of the artefacts produced.

Conclusions

The students have embraced this studio with real enthusiasm and the feedback has been consistently high. The staged development of the world-building allows them to better pace the project rather than

rushing to produce a solution and many have said it has been the one potential employers have been most keen to discuss in interviews. Many institutions express their aim to provide research led teaching and of all the modules and studios I have created and taught undergraduates I feel this is the one that best embodies that ethos.

Acknowledgements

I wish to thank all the students who embraced this studio so enthusiastically over the last 3 years as it has been a fantastic experience. I would also like to thank my former and current PhD students Joe Lindley, Franziskia Pilling and Haider Ali Akmal who have shared their practice with students at various times.

References

- [1] Paul Coulton, Joseph Galen Lindley, Miriam Sturdee, & Michael Stead, M 2017, Design fiction as world building. in *Proceedings of Research through Design Conference 2017*. Research through Design (RTD) conference 2017, Edinburgh, United Kingdom, 22/03/17.
- [2] Joseph Voros. (2003). A generic foresight process framework. *foresight*, 5(3), 10-2, 2003.
- [3] Quentin Fiore, & Marshall McLuhan. *The medium is the message*. New York: Random House, 1967.
- [4] Rodrigo Freese Gonzatto, , Frederick MC van Amstel, Luiz Ernesto Merkle, & Timo Hartmann. "The ideology of the future in design fictions." *Digital creativity* 24, no. 1, 2013: 36-45.
- [5] Paul Coulton, Dan Burnett, & Adrian Ioan Gradinar. Games as speculative design : allowing players to consider alternate presents and plausible futures. *Proceedings of Design Research Society Conference 2016*. editor / Peter Lloyd ; Erik Bohemia. Design Research Society, 2016. pp. 1609-1626.

Figure 7: Service Built Around Artificial Human Womb

- [6] Auger, James. "Speculative design: crafting the speculation." *Digital Creativity* 24, no. 1 (2013): 11-35.
- [7] Paul Coulton, Joseph Lindley, & Haider Ali Akmal, Haider Ali. / Design fiction : does the search for plausibility lead to deception?. Proceedings of Design Research Society Conference 2016. editor / Peter Lloyd ; Erik Bohemia. Design Research Society, 2016. pp. 369-384.
- [8] Paul Coulton & Joseph Lindley. "Vapourworlds and design fiction: The role of intentionality." *The Design Journal* 20, no. sup1, 2017: S4632-S4642.

Figure 8: Instruction manual for fully immersive suit and equipment for NASA Mars Experience

The image shows the top two pages of an instruction manual. The top page is the cover, featuring the 'MADE IN MARS' logo, the product name 'MODEL M', and illustrations of a person in a suit and a rover. The second page is the 'CONTENTS' page, which includes a table of contents and a 'Book your holiday to Mars today!' banner. The table of contents lists sections such as 'Important Safety Instructions', 'Packaging Content', 'Product Description', 'Fitting Guide', 'Care Instructions', 'Warranty', and 'Privacy Policy'.

The image shows the bottom three pages of the instruction manual. The first page is titled '7. Mars Holiday B' and features a globe and various pieces of equipment. The second page is titled '8. Fitting Guide: Model M' and includes a table with columns for 'Size', 'Weight', 'Height', 'Waist', 'Chest', 'Arm', and 'Leg'. The table lists sizes from Small to Extra Large. The third page is titled '9. Care Instructions' and includes diagrams of the suit and gloves, along with text instructions for care and maintenance.