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**Article**

# Futuring Visual Communication Pedagogy: Two Visual Thinking Tools for Applied Design Futuring

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## Abstract

*In this article the author describes two novel design futuring pedagogical tools that were included in the review of a foundational undergraduate Design Computing unit. Using two cycles of Participatory Action Research the article shows how these two simple visual tools—five square futuring and design timescapes—helped to introduce students to the principles of visual communication via a futuring lens, familarise the cohort with creative time-based visual argumentation, and demonstrate the practical application of futures thinking to design practice. The article uses exceptional student works to illustrate their application in this context.*

## Keywords

Futuring, Visual Communication, Design Timescapes

## Introduction

A design practice and pedagogy that embraces futuring tools and methods is better equipped to help students and stakeholders combat creative paralysis through stimulating unique responses. Best known through the field of futures studies, or foresight thinking (Cornish, 2004; Fry, 2009; Hoyle, 2006; Inayatullah, 2008) futuring tools have been used in foresight analysis in the business world for decades (Inayatullah, 2008; Jefferson, 2012). These tools are particularly valuable when design students, professional designers and their collaborators or clients are faced with interwoven social challenges and wicked problems, such as health care, inequity, and escalating climate crisis.

Revising a core unit of a design computing undergraduate degree at the University of Sydney (USyd) in 2019 provided me with the opportunity to experiment with embedding some basic futuring tools in foundational visual communication design education. Prior to this review, the unit focused on graphic design and 'effective branding' techniques, as well as teaching Adobe Creative Suite software to create logos, product posters, and digital interfaces. The brief for this unit review was to include more critical thinking, and to integrate research into social justice-focused design. I chose to embed design futuring to address this brief, and over the course of two years of iterations (2020 and 2021) refined two futuring tools embracing visual thinking that will guide other educators working to address a similar pedagogical challenge.

In this article, I argue that learning to visually communicate arguments for more equitable futures is important, that visual communication pedagogy is an impactful space to expand futures literacy in design practice, and the two simple visual futuring tools described here are a useful way to embed basic futuring in foundational design education.

Firstly, I provide a context for the USyd visual communication unit review by giving a background to my prior experiences in design futuring in pedagogy and practice. I highlight key futures studies and design scholars that have shaped my practice, as well as some influences from the visual communication field, as well as drawing from my prior publications on the design timescapes tool (Tomitsch et al 2021, Cooper 2022). In my methodology section,

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I explain that Participatory Action Research (PAR) (McTaggart 1991, Baum et al 2006, Somekh and Zeichner 2009) was chosen for this study as the most appropriate method to investigate the effectiveness of the new tools in the revised unit, and detail two cycles of PAR used to design, apply, assess and refine two pedagogical tools of my own design: five square futuring, and design timescapes. The paper also includes examples of the improved student outcomes from the second iteration as further evidence of the effectiveness of this approach, and concludes that these findings hold value for anyone interested in integrating basic futuring into their curricula.

**Context for the visual communication unit review**

My review of the visual communication unit at USyd was heavily influenced by having recently led a 12-month faculty futuring research project at the University of Technology, Sydney (UTS)[1], and coordinating an interdisciplinary second-year design futuring course for the design school. Teaching in this interdisciplinary design course for the first time in 2014 under the leadership of Associate Professor Alexandra Crosby had a profound impact on my design practice, teaching, and grassroots activism strategies. This was primarily due to exposure to the ferocious design futuring argumentation of Tony Fry (2009) and Sohail Inayatullah (in particular *Six Pillars: Futures Thinking for Transformation*, 2008), as well as the practice-led scholarship of Anthony Dunne and Fiona Raby (especially *Speculative Everything,* 2013), Sanders & Stappers' *Convivial Toolbox* (2012), an array of critical design practitioners, artists and theorists, as well as the inevitable—but often underrated or uncredited—influence of exceptional student work from two decades of teaching.

This design futuring course taught undergraduate design students how to apply Johan Galtung's Double Variable method (1998) as a way to identify a future scenario in order to develop and then build a speculative object (prototype) from that future. When I took on the course coordination role, I revised it to place greater emphasis on visual argumentation, and introduced both design timescapes and 'pendulum futuring'[2] (concepts developed in my professional design practice), along with additional backcasting stages and greater emphasis on the difference between bioregional and geopolitical drivers of change when creating a double variable.

Alongside teaching design at several Australian universities, I have worked as a storyboard artist, animator, graphic designer, and festival director before being introduced to the field of futures studies, and have found that the visual communication of time—pasts, presents, and futures—is not only an effective introduction to futuring, but also a way to better understand design innovation consequences, and inform strategic planning. In 2019 I published a reflective practitioner paper soley focused on the development and application of design timescapes, positing:

> Encouraging designers to think about the precedents and consequences of their designs is integral to generating a design ethic that respects both our past and future generations (see Escobar, 'Sustainability: Design for the pluriverse', 2011, and Fry, Design Futuring, 2009). Situating designs as interventions in time also clearly acknowledges our growing responsibilities as designers in the age of the Anthropocene. The visualization of these relationships serves not only the designer engaged in the research, but those from other disciplines seeking to understand what historical or sociopolitical contexts may have informed a particular design innovation at a particular moment in time. (Author 2022)

Fry (2009, pp. 145–155), states that the analytical tools and concepts used by architects and designers to foreground the issue of time in the design process (notably 'design life' and 'life-cycle') are "predominantly preoccupied with matter, form, function/use and space". However, it was the following paragraph that inspired my thinking behind the development of both pendulum futuring and design timescapes (Cooper, 2022) as a way to foreground time, context and consequence in design research and practice:

[1] Commissioned by the Dean of the University of Technology, Sydney Faculty of Design, Architecture & Building in 2018.

[2] The author devised the term 'pendulum futuring' in 2018 after discovering that mapping out the same amount of time backwards as forwards (for example, 20 years) can help to make a future time period more tangible due to our grasp of the shifts, changes, trends, innovations, and challenges that have led to the present moment. The reader will note through the student work shown in the paper that pendulum futuring is often applied in design timescapes.

> The past quickly fades into a condition of indistinctness, while the future is a void… Even more problematic is the way the future is so often thought to be a void, a tabula rasa waiting to be filled or written upon. The reality is very different. A great deal of the future is delimited by what we have already thrown into it. The future is filled with the attainments and mistakes of the past, which enable or disable possibilities (our own lives, of course, mirror this situation). The future, so understood as a fate already partly sealed, travels towards us. (Fry, 2009, p. 146–147)

Visualising change, innovations, impacts, and the passing of time using both linear and non-linear graphics invites audiences to relate to these shifts in more tangible ways than just reading about them. Change as a concept is massive, so using graphic wit, patterns, repetition, and meta- and micro-detailing can help to guide thinking towards conversations that need to be had, or actions that need to be taken.

## Methodology

In their 2007 book *Participatory Action Research Approaches and Methods* editors Sara Kindon, Rachel Pain and Mike Kesby collate contributions to illustrate the cyclical process of PAR:

> Researchers and participants identify an issue or situation in need of change; they then initiate research that draws on capabilities and assets to precipitate relevant action. Both researchers and participants reflect on, and learn from, this action and proceed to a new cycle of research/action/reflection… Together they develop context-specific methods to facilitate these cycles. These may include the adaptation of traditional social science methods like semi-structured interviews, focus groups and Geographic Information Systems (GIS), or innovations in visual or performative methods like diagramming, video and theatre. (p.1—2)

For this study I have used PAR to identify the issue in need of change, initiating the research required to effectively review an undergraduate visual communication unit, and assess the effectiveness of embedding new futuring tools in visual communication pedagogy to encourage greater criticality and engage with social justice-focused design. PAR combines ‘collaborative research, education and action oriented towards social change’ (Kindon et al, 2007, p.i), making it a perfect vehicle to support educational reform (McTaggart 1997, James et al 2007, Somekh and Zeichner 2008,).

My visual communication unit revision for USyd had to balance core unit requirements covering the fundamentals of visual communication (basics of colour theory, typography, composition, gestalt principles, etc.) and establishing core skills in Adobe Creative Suite, while introducing my design futuring tools. An iterative PAR cycle approach that adapted traditional social science methods to aforementioned ‘innovations in visual…methods like diagramming’(Kindon et at 2007, p.1-2) as assessable student works—in this case, design timescapes and Five Square Futuring—with the opportunity to review the unit content, student projects, and student feedback (anonymous student feedback surveys) annually. I have engaged two cycles of iterative PAR to plan (design), act (apply), reflect, and observe (student projects) to help evaluate two design futuring tools in 2020 and 2021: design timescapes and Five Square Futuring.

### *PAR Cycle 1*

*PLAN: Design and formation of visual futuring tool number 1, design timescapes*

> [Design Timescapes is] a novel visual thinking tool that not only challenges designers to visualize the relationships between design and societal shifts but encourages the development of visual argumentation for design proposals. This approach is also useful in introducing the concept of design futuring to

students/designers unfamiliar with this emergent field. (Cooper 2022)


**Fig 1.** Excerpt of the 2017-2037 design timescape created during a design futuring workshop I facilitated for Inner West Council "Creating Our Inner West 2036" with sketch-noted details created by Tasman Munro and Will Owen Scott Kemmis (2017).

I developed the design timescapes visual thinking tool through professional practice when designing and facilitating futuring workshops between 2016—2020 (See figure 1) and further refined it as a critical design futuring research and visual communication tool when contributing design timescapes for the revised handbook of design methods emerging from the Design Lab at USyd, *Design. Think. Make. Break. Repeat* (Tomitsch et al., 2021):

> Importantly, design timescapes are not just a visualisation of historical events (a timeline) but a combination of known events (precedents) and unknown future possibilities (consequences). We are able to expand our timescape to explore centuries before and after a design was created or to just focus on a time span of a few weeks before and after. (Tomitsch et al., 2021)

An extension on the well-established futures cone (Taylor 1988, Hancock and Bezold 1994, Voros 2001), a design timescape employs the concept of 'pendulum futuring' (Cooper 2022) in exploring the same amount of past time as future time so as to give the future strategy (design argument) some momentum/a 'run up'. It was identified as an appropriate tool to embed in the visual communication unit as it can be used in a research phase, and also in a presentation phase. A well-designed design timescape requires the designer/researcher to be selective and critical in their choice of precedents and possible consequences of a design, campaign, or political intervention. The designer makes these choices visible and then maps out potential futures. It is primarily used as a device for design argumentation through the visualisation of opportunities and obstacles, but for some projects this visualisation of strategic steps in relation to historical and contextual factors may also be the final 'product'. As explained in my 2022 paper describing the tool in-depth, there is a relatively speculative component to the process:

> These visualisations are selective, and inevitably speculative, acknowledging that the greater the distance the researcher has to the issue or design they are exploring (both temporally and culturally) the more

speculative it will be. (Cooper 2022)

*ACT: Application of design timescapes to the first iteration of the new visual communication unit in 2020*

I chose to not only introduce this tool as a design research method, but also as a core visual communication assessment/challenge in the unit, as the design of the timescape allows the students to compose a poster that explores a specific topic/question, balancing the use of image and text, colour, and heirarchy of information – all visual communication fundamentals in practice.

Integrating this novel visual thinking tool required signficiant rethinking of the lectures, reading materials, and tutorial guidelines. It also necessitated extra training for the tutors who were well-versed in visual comunication fundamentals, but had (mostly[3]) no experience in design futuring practice. In 2020 my scholarship on the development and application of design timescapes (Tomitsch et al 2021, Cooper 2022) had not yet been published, so only unpublished applications in professional practice were shared in lectures.

I chose three different social design focused organisations/projects for the students to base their design timescape on, arguing for particular futures for their chosen organisation/project: ethical fashion app *Good on You* (goodonyou.eco) grassroots climate justice campaign *Stop Adani* (stopadani.com), and portable solar light initiative *Little Sun* (littlesun.org).

***REFLECT and OBSERVE PAR CYCLE 1***

The tutoring team were enthusiastic about learning (and teaching) a novel visual thinking tool, but expressed frustration on a regular basis when they could not show previous examples of design timescapes from their own professional practice, and only limited, or workshop-based examples from the my own professional practice (See Figure 1). The students – who were primarily first-year undergraduate design students –engaged well with the challenge, although several expressed that they could not see the connection between the futuring exercise and their futures in UX design. They were also frustrated that there were no student assessment examples from previous years to use as a guide for their own designs. The teaching team was impressed with the quality and variety of graphic approaches to the design timescapes produced in this first iteration (see figure 2 and figure 3 student examples by Dylan Mackey and Mia Flokis). These two very different examples show how these students were able to not only research, synthesise and select key moments in multi-stakeholder challenges relating to their chosen organisation to date, but were also able to speculate and argue for particular futures for these projects in visually engaging ways. Both students chose to focus on key individuals who shaped the narrative of the project. Mackey's design uses a 'hand-drawn' approach that makes some of the complex relationships between interdisciplinary research, international collaborations, and industry partnerships seem more approachable/easily digestible. He combines informed projections and the organisation's stated goals combined with his own speculations to project that these combine to eventually meet ambitious United Nations targets and establish sustainable energy programs for schools worldwide. In comparison, Flokis integrates the recognisable Stop Adani logo, and photographs from climate justice protests to illustrate the connections between the various stakeholders' actions, including unsuccessful activist events, lack of support for Indigenous Australians, continued biodiversity loss, and ongoing misconduct by fossil fuel giants such as Adani to warn us of a future where climate justice is not achieved.

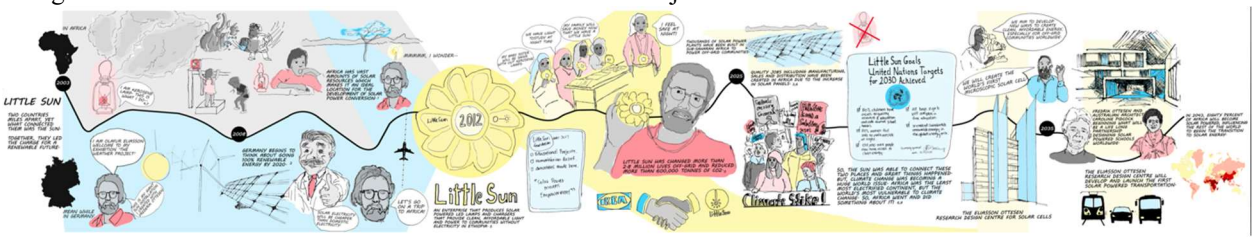


**Fig 2.** Design Timescape exploring Little Sun precedents and possible futures by student Dylan Mackey. Image included with

[3] Several of the tutors in the team studied at UTS and had experienced the *Interdisciplinary Design Studies Lab A* (now called Design Futuring) that the author had taught into for five years prior to joining The University of Sydney.

permission from Mackey.

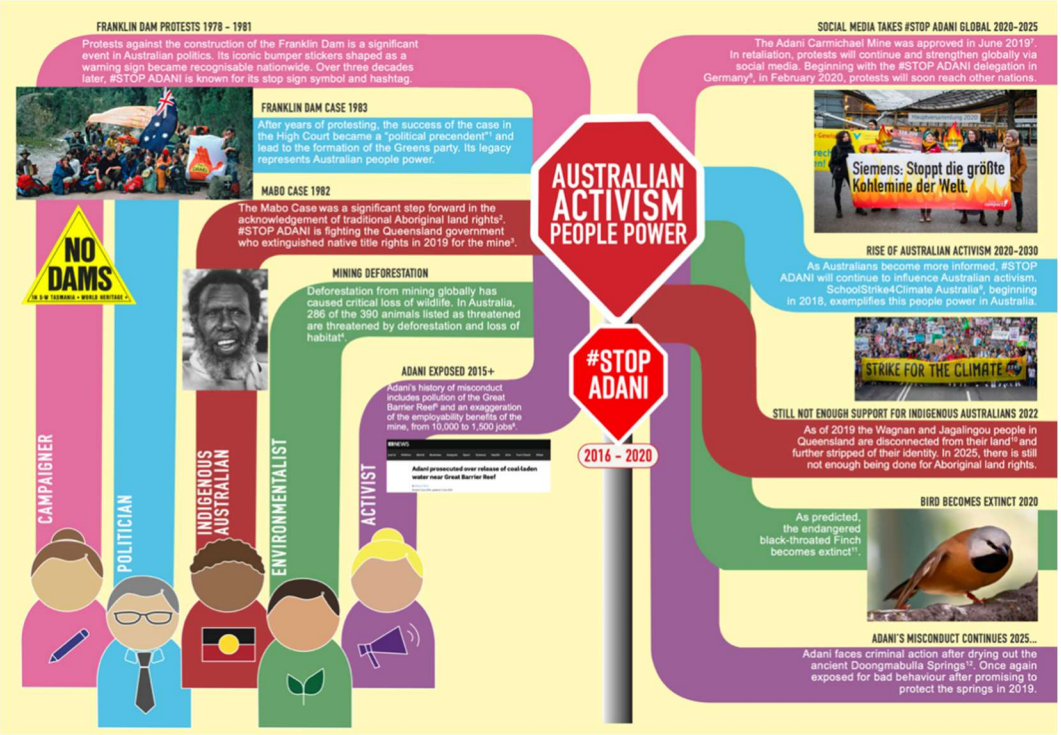


**Fig 3.** Design Timescape exploring Stop Adani precedents and possible futures by student Mia Flokis. Image included with permission from Flokis.

When considering that assignments set in this unit prior to my review included the redesign of a supermarket logo, and a poster for a wearable device it is clear that including an assessment like design timescapes equips design students with more advanced visual communication skills, and expanded social design thinking. The majority of students understood the benefits and broad application of futures thinking to design innovation and user experience, with several students from other faculties (majoring in design) expressing their desire to seek out further training in design futuring.

When gathering the tutor and student feedback, it was clear that the design timescapes task needed to be supported by additional futures literacy built into the unit, that this was to occur earlier, and needed to be a simpler engagement with visualising possible futures. I recognised that this initial unit review and redesign was ambitious. Very little content remained from the unit as it had been before the review, and to make room for the new material emphasis on software training was also reduced to make space for design futuring content. Giving the students a variety of social justice focused campaigns and services to choose from also added a layer to this complexity.

The bulk of the design and planning for the initial unit revision took place in late 2019, prior to the major disruptions caused by the onset of the COVID-19 pandemic and subsequent government restrictions requiring all studies to move to online platforms (in March of 2020 in NSW). This necessitated the shift from physical collaboration in studios to a mostly foreign online learning environment aided by Miro (a collaborative online platform).

***PAR Cycle 2***

*PLAN: Design and formation of visual futuring tool number 2, 'Five Square Futuring'*

PAR cycle 2 took place in 2021 with COVID-19 restrictions wavering, and many students still opting to join the unit remotely. The primary plan for this iteration was to identify and design a way to introduce students to futures thinking earlier in the unit, without displacing any of the already condensed content covering visual communication fundamentals. I revised the design timescapes brief to respond to a single live brief provided by her industry research partner Médecins Sans Frontières/Doctors Without Borders Australia/NZ (MSF)[4].

I have over 20 years of experience of coming up with first tutorial 'ice-breakers' for students and workshop groups. Most of these have been short, playful games that reveal everyone's names, more recently they have included prompts to reveal something about the connection the student has to design. With the added challenge of introducing futuring, and connecting as many exercises as possible to visual communication, I devised a self-futuring visualisation exercise called five square futuring. This was inspired in part from my background in storyboarding, but was also inspired by powerful and simple visual communication of the author Jeannie Baker (see figure 4), and Pulitzer Prize winning data journalise Mona Chalabi (see figure 5). Both of these visual communicators are able to tell powerful stories in just a few frames.

**Fig 4.** Jeannie Baker, sequence of images from *Window* (1991). https://www.jeanniebaker.com/focus/window-on-a-changing-world/. Jeannie Baker's book illustrations speak a thousand words, with new elements revealing themselves with every 'read' of their shifting landscapes and cityscapes. A simple triptych such as the example of her work in Figure 3 showed students a very clear example of visualising the passing of time through the inclusion, omission, and decay of elements in a graphic narrative.

[4] Part one of the brief was to create a design timescape that synthesised 20 years of MSF's *Access* campaign, to contextualise the current health emergency and need for global action on COVID-19 vaccine access. Part two of the brief was to design a 4-tile Instagram campaign calling on Australians to advocate for the Federal Government to sign the TRIPS waiver, allowing greater access for countries in the Global South produce COVID-19 vaccines.

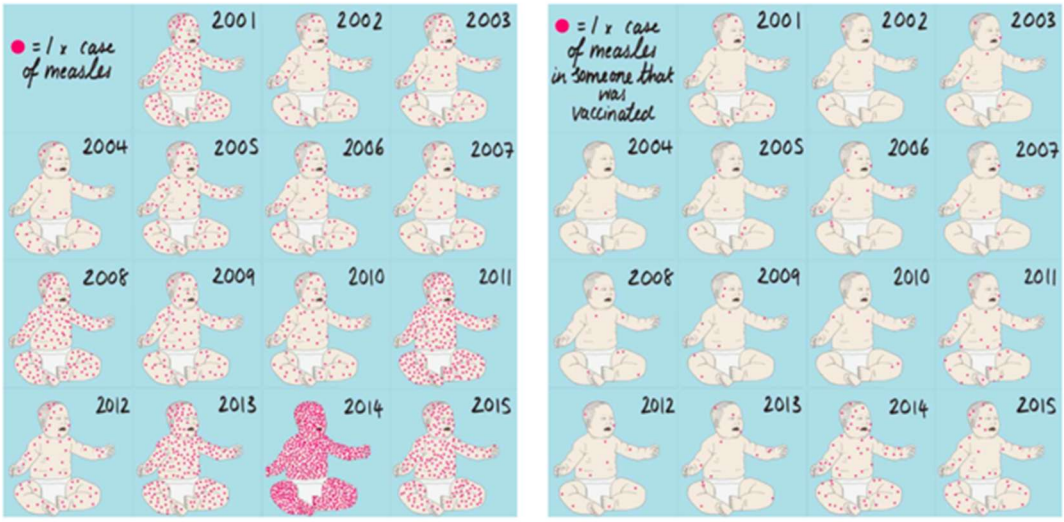


**Fig 5.** Mona Chalabi (2019, January 31), *How measles outbreaks have spread amid the anti-vaccine movement*, The Guardian, https://www.theguardian.com/news/datablog/2019/jan/31/measles-outbreaks-us-anti-vaccine-movement. This data visualisation accompanying their article on measles outbreaks could have been a pie chart, but the repetition of the emotive screaming baby adds a layer of personality (and urgency) to the argument for vaccination.

The five square futuring tool is a simple visual cue for students to introduce themselves to one another and find some common ground in desired futures. This exercise also familiarises the cohort with creative time-based visual argumentation, as they are encouraged not only to write down their ideas, but also to express the shifts through illustration or collage.

*ACT: Application of five square futuring with design timescapes and live brief to the second iteration of the new visual communication unit in 2021*

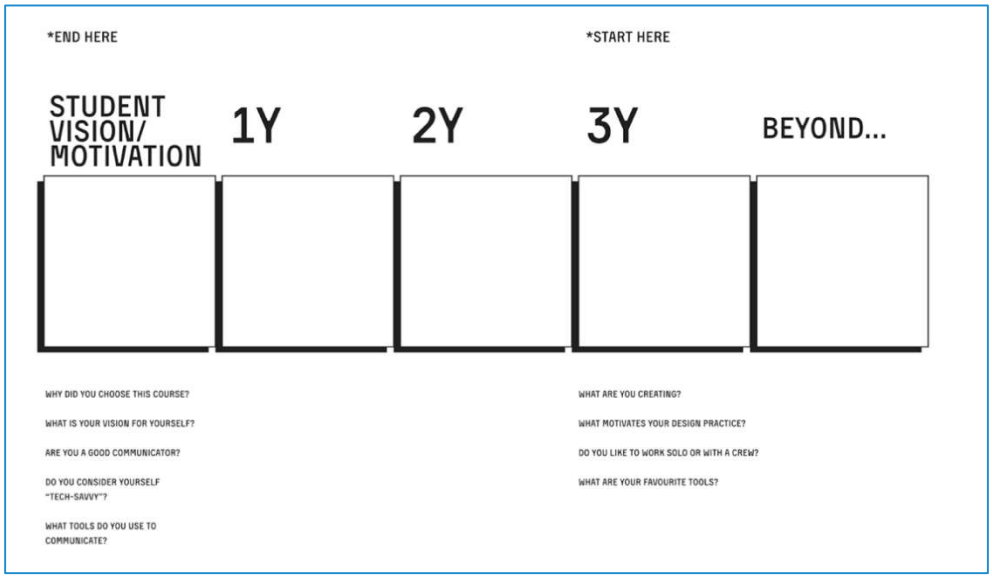


**Fig 6.** Five square futuring template given to students in their first tutorial.

As indicated on the template in Figure 6, students were asked to read the prompts across the whole template, but to start by filling in the spaces marked '3Y' (third year) and 'BEYOND...', that is, three or more years on from where they currently are in their degree. The majority of the students were at the beginning of their undergraduate studies, so this is most likely futuring to their final year of studies, following the prompt questions *What are you creating? What motivates your design practice? Do you like to work solo, or with a crew? What are your favourite tools?* They then used the '1Y' and '2Y' spaces to backcast the steps between what they have envisioned in three years and today, finishing the exercise by following the prompts *Why did you choose this course? What is your vision for yourself? Are you a good communicator? Do you consider yourself tech-savvy? What tools do you use to communicate?*

This exercise was briefly introduced in the introductory lecture, and required little explanation from the tutors. The students responded well, and with a variety of visual communication approaches (illustrations, text-only, highly descriptive, abstract) to communicate their possible futures and current drivers for studying design. It was an effective way to set the tone for the core aspects of the unit: visual communication, storytelling, applied futuring in design processes, and the consideration of time and consequence, as well as the drivers and responsibilities of a designer. Students were only given an hour to work through this task in class (including the time to share with their peers) so it was a playful, low-stakes introduction to futuring that made the more complex tasks they encounter later in the semester less daunting.

***REFLECT and OBSERVE PAR CYCLE 2***

Adding this second visual futuring tool combined with aligning the design timescapes brief with the single MSF challenge produced stronger student work, and contributed to a more positive teaching experience for the tutors. For some of the tutors it was their second time teaching the unit, and so they already had more experience answering questions about design timescapes and futuring as applied to visual communication.

With the postitive experience of visualising their own personal trajectory in a low stakes 'ice-breaker' exercise in the first week of semester, students rose to the challenge to use the design timescape as a vehicle to research and visualise the relationships between the key moments of over twenty years of MSF's Access Campaign, so as to then speculate on the next twenty years of this complex public health challenge. Students researched the role of governments in regulating medication costs and access with 'Big Pharma', and considered the role that visual communication plays in an array of urgent public calls to action. For MSF, this has included broadcast-style advocacy campaigns, petitions, posters, billboards, staged events, donor-drives and more.

Using the design timescapes as a visual thinking tool, students identified a driving question such as "What is the role of advocacy campaigns in the future of medication access?" to aid research into the precedents and consequences of relevant design interventions and innovations. Once this step was completed, and insights articulated, they identified informed projections (e.g., reports from the United Nations, MSF global, IPCC reports, etc.) to speculate on future consequences of related design interventions and innovations—in this case, campaigns for more equitable access to COVID-19 vaccines, as well as other medication and healthcare.

As the following two examples show (figures 7 and 8), the students submitted an interim assessment, a 'sketch' of their design timescape showing at least ten key moments relating to their driving question, and shared these with their tutors and peers before they began their final posters based on additional research into effective graphic narratives.

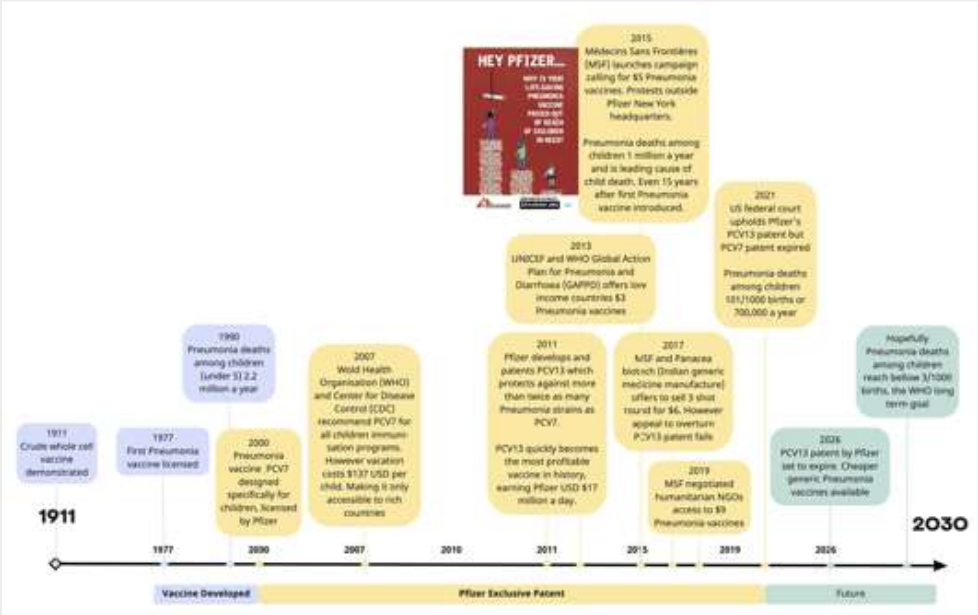


**Fig 7.** Riu Fukazawa's Task 2A: MSF 'Hey Pfizer' design timescape planning sketch – permission granted.

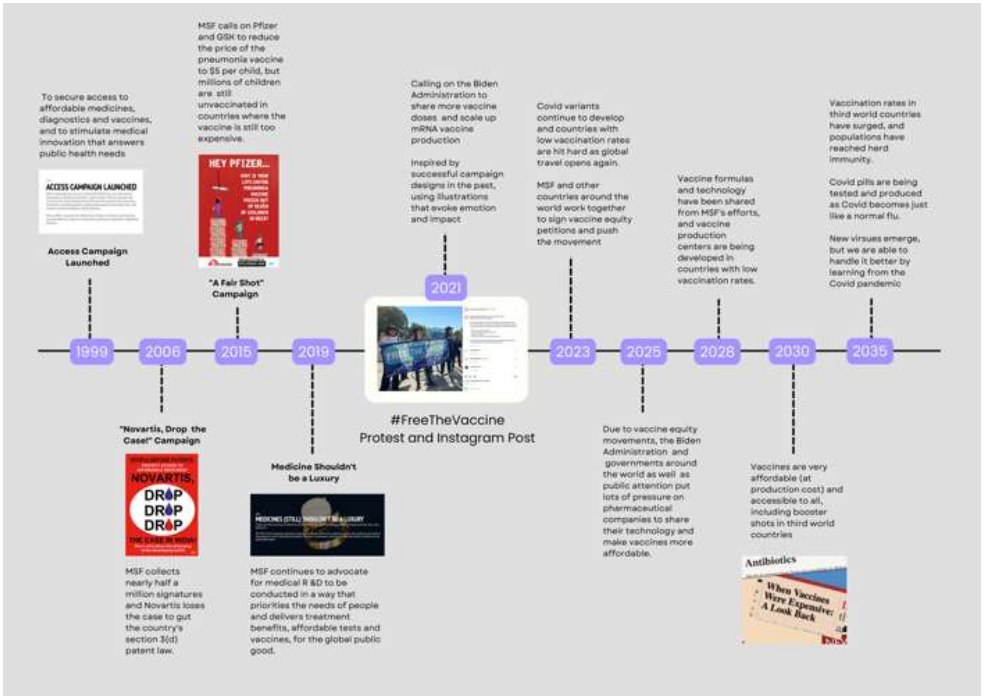


**Fig 8.** Jessica Tan's Task 2A: '#FreeTheVaccine' design timescape – permission granted.

From the two student examples above, we can see that through this process, students learned to synthesise a complex and long-running global campaign, drawing on MSF's own materials as well as news articles and broader expert projections regarding vaccination policy and practice. Both students draw on key moments in MSF advocacy as well as policy changes, pandemics, and the key role played by big pharma in the accessibility of healthcare

globally. For the interim design timescape assessment, the students were not required to 'design' their sketches, only to indicate the relationship between the key moments and time. In this initial sketching stage, students were also able to see where there were peaks and troughs of activity, as well as a variety of measures of progress over time. They were invited to speculate openly about the relationship between intense campaigning and policy change, and to be critical of accepting the most obvious relationships (e.g., petitioning, or medication price drops). These two student examples above are consistent with most of the student interim timescape submissions in that they plot key events along a linear timeline, include some images and a mix of informed projections, data, with their own creative future speculations.

After researching examples of effective visual communication campaigns and graphic narratives, students then had to consider how to successfully combine visual elements to effectively communicate their concept, argument, and time in an engaging way. Drawing on the work of the same two students shown above, we can observe the influence of their research into graphic narratives to create engaging design timescapes that argue for (and against) future outcomes for access to vaccines (Figures 9 & 10).

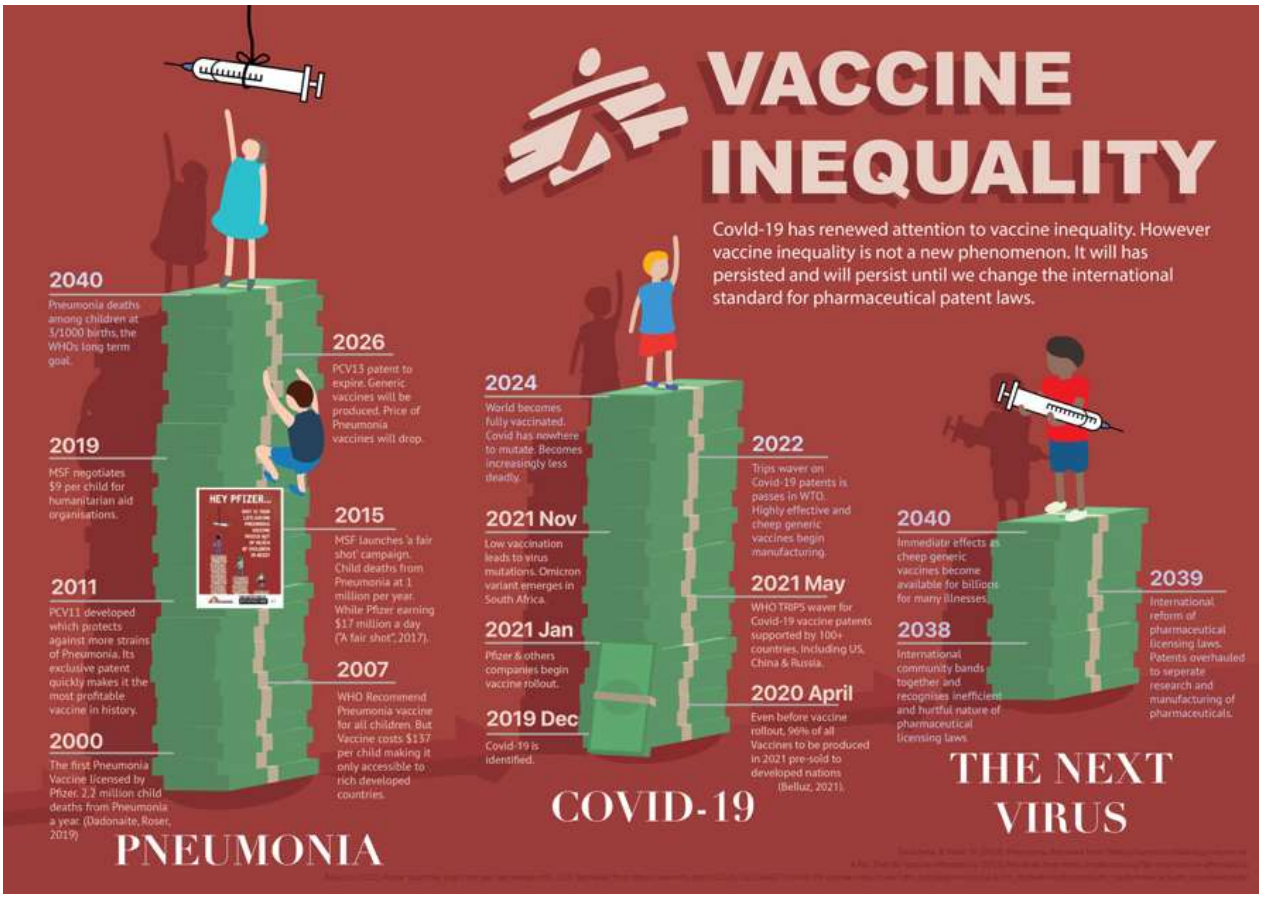


**Fig 9.** Riu Fukazawa's Task 2B: 'Futuring Vaccine Inequality' design timescape – permission granted.

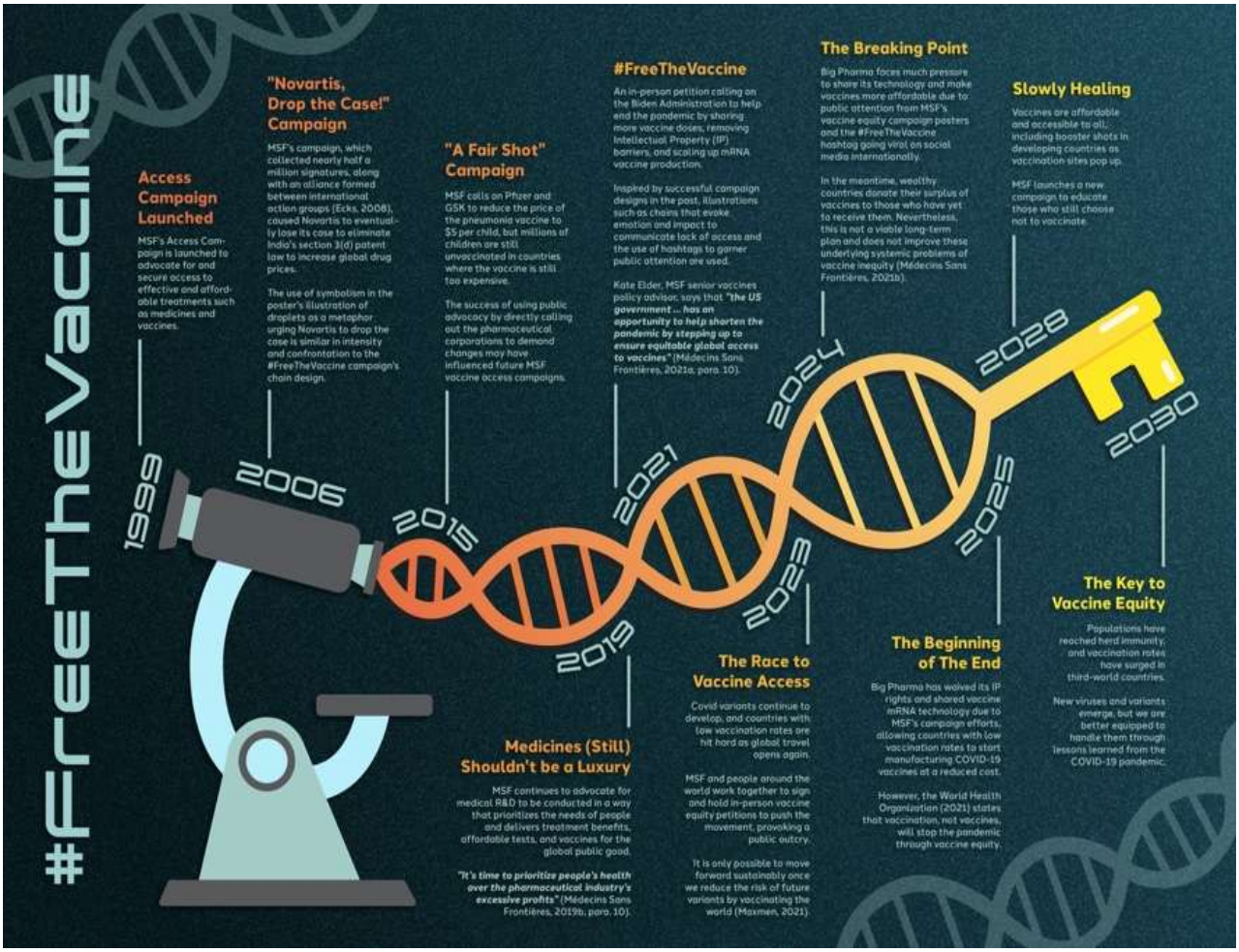


**Fig10.** Jessica Tan's Task 2B: 'The Key to Vaccine Equity' design timescape – permission granted.

Two more students' final posters (Fig. 11 & 12) are included here to show the incredible variety of visual communication approaches to the same problem space, using design timescapes to communicate possible futures in which we play an active role.

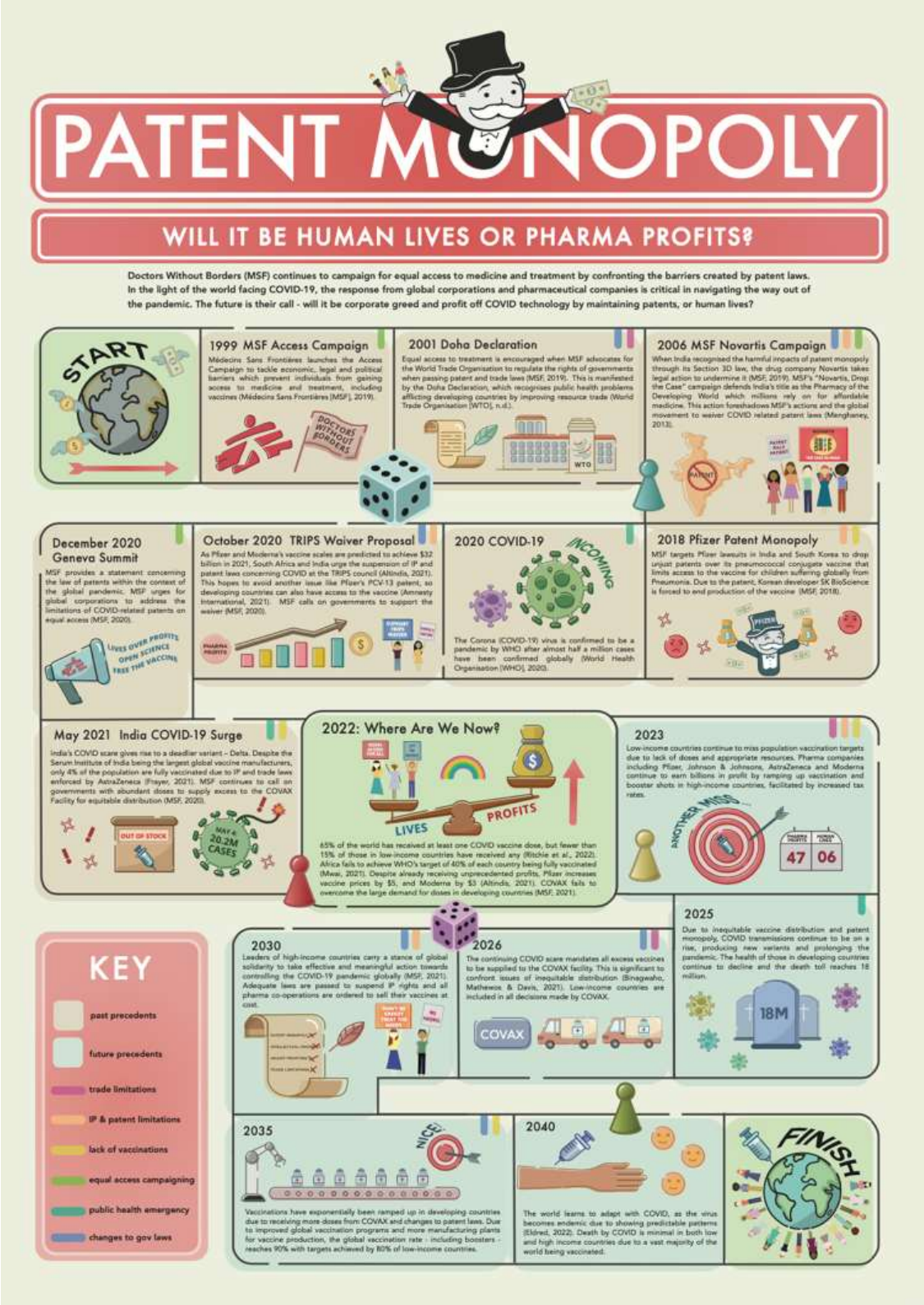


**Fig 11.** Purvi Bothra's Task 2B: 'Patent Monopoly' design timescape poster – permission granted.

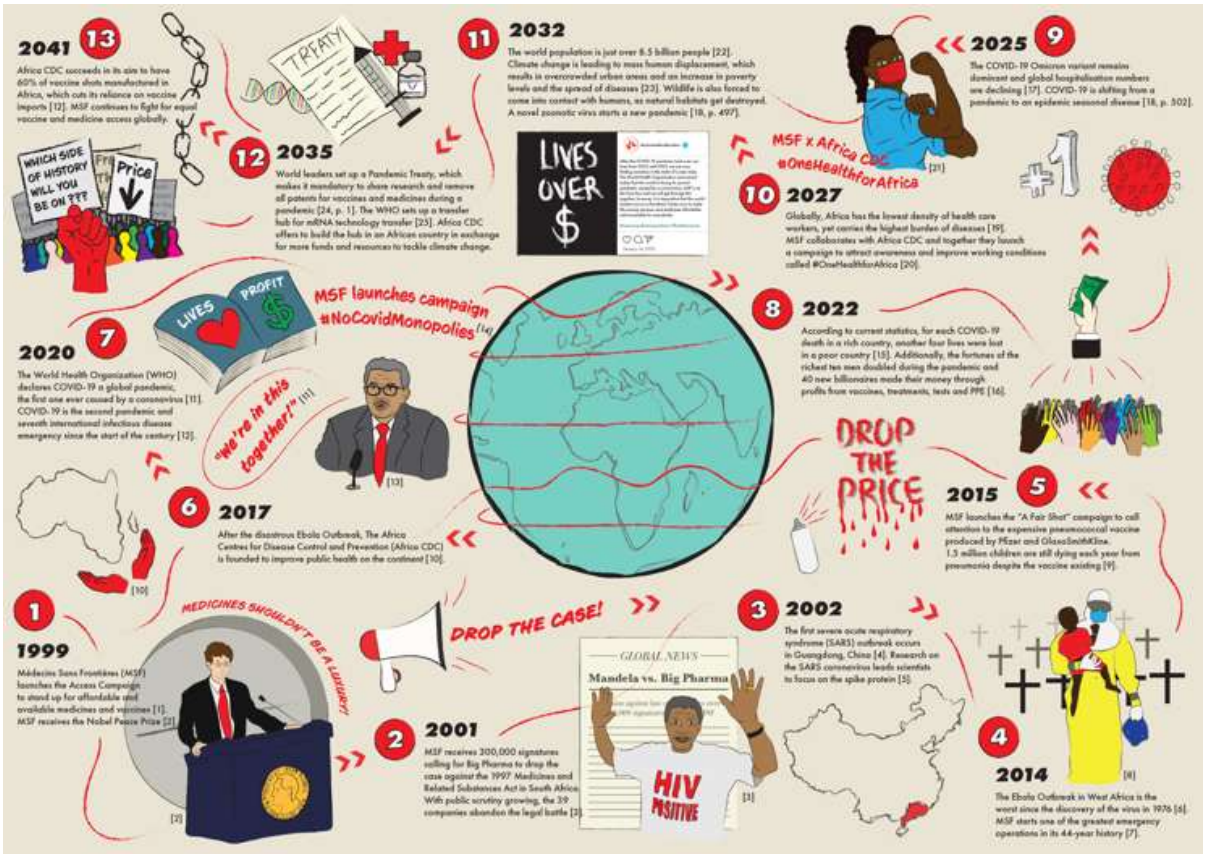


**Fig 12.** Jana Plumm's Task 2B: 'Futuring Lives Over Profit' design timescape poster – permission granted.

Even though all of the students were given them same brief, and the same 20 years of MSF's visual communication advocacy materials to date, they have each approached the task from a different aesthetic direction. Fukazawa expands on the existing MSF poster ttargeting Pfizer to argue for change, Tan's design timescape is built on a powerful visual metaphor that draws the audience in to 'unlock' the forces of change over time, Bothra plays on our knowledge of popular boardgame Monopoly to make a bold statement about big pharma, and Plumm uses a 'hand drawn' illustrative style illustrate the interconnected global factors at play in a more equitable future for access to medications.

All four design timescapes demonstrate that the students learned to effecively synthesise a complex and long-running global advocacy campaign, drawing on MSF's own materials as well as news articles and broader expert projections regarding vaccination policy and practice. It was also clear in this second iteration that the students were more confident in their attempts to visualise futures for MSF after having first tried to visualise their own futures, and to discuss those of their peers earlier in the unit. The teaching team noted marked increase in their confidence moving into this assessment, that we can attribute to a combination of this additional futuring tool, a simplified focus on a single live brief, and the growing futuring literacy of the teaching team in the second year.

## Discussion

> The point of this [design futuring] exercise is not to try to spread doom, gloom and fear but to communicate that precautionary design becomes more important by the day and that it has to be able to contemplate large-scale relational complexity. (Fry 2009, p. 150)

In the first two years of embedding these simple visual futuring tools into the unit, we have seen that in addition to graphic design skills students develop an understanding of how to critique existing visual communication around them in a way that informs their own designs, with sensitivity to an array of contexts, and an understanding of the responsibility a visual communicator has to futures—whether they are communicating possible futures, or producing designs with social impacts.

In addition to five square futuring and design timescapes, students (and design tutors) have engaged with futuring methods such as identifying drivers of change, and synthesising expert projections with speculative scenario design to communicate possible futures to a specific audience, thereby recognising the relevance of futuring to an ongoing and vital design practice.

In 2002 and 2003, I once again ran the unit embedding these succesful tools. The university continued for hybrid-mode teaching (approximately 70% students in-person, 30% remote) with increasing student numbers, and larger teaching team. The challenge of teaching futuring methods and approaches to visual communication to the staff as well as the students continues to be rewarding but demanding in addition to managing a client's complex live brief and significant student admin with over 380 students in the cohort (in 2023).

The most significant change since the observations of PAR cycle 2, was that the demands of the visual communication fundamentals, software, and futuring components were already challenging first year students, and that to ask them to also research geopolitical pharmaceutical trends and a rapidly shifting landscape relating to vaccine licensing, production and inequitable distribution relating to the MSF brief was excessive. Only the high-performing and self-motivated students were able to do all of this well, so we simplified the MSF brief to target young social media users in Australia and New Zealand to sign up to the Doctors Without Borders mailing list, so as to support the ongoing global medication access campaign.

Although the design timescape assessment was arguably the most research-intensive assignment of the unit (and the key offering of this paper), it was the final assessment task where the students demonstrated their ability to further apply their knowledge of visual communication fundamentals on a familiar platform. Students were tasked with creating a call-to-action campaign (formatted across a 4-tile Instagram carousel) based on their insights from their design timescape research. Students were also required to inform their audience (Instagram users based in Australia and New Zealand from 20–35 years of age) of the issue, encouraging them to sign up to the MSF newsletter, all while adhering to the globally recognisable brand guidelines of MSF. The best student designs explicitly address future actions, and include graphic wit and simple data visualisation to invite their audience into a future where they take a proactive role in reducing harm through addressing inequity.

## Conclusion

Futures literacy, futures thinking, and futures studies are often taught in isolation, or in situations where students are focusing on the goal of learning to strategise via future speculation. This article shows that we can introduce basic futuring tools in order to embed futuring as a necessary part of a consequence-conscious and context-responsive design practice, starting from simply asking "Where do we want to be?" instead of "How do we change the current situation?".

The value of this study for other educators can be found in the conclusion that design futuring tools can be embedded in established units of study to engage students in the social justice impacts of innovations and events over time, encourage them to make futures-informed visual arguments, and align with live industry briefs demonstrating real-world impacts, increasing the student's creative criticality, and without displacing existing core content.

This is a celebration of the application of design futuring as a way to combat paralysis and to stimulate creative responses when faced with interwoven social challenges and wicked problems (such as inequity and health care). Embedding simple visual futuring tools in a foundational visual communication unit as part of a design computing degree has demonstrated benefits not only to the students' critical thinking, but also to improved, more ambitious design argumentation in their submitted designs.

In the field of design it can be easy to take the power of thinking visually for granted. The two visual futuring tools presented in this paper can be used as basic exercises to stimulate conversation in any field or sector, with the templates amended or pre-populated with informed projections or key moments relevant to specific issues,

challenges, and themes. Learning to visually communicate more equitable futures is important, but perhaps it is in the education of visual communicators that futures literacy might gain an even broader reach.

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**Image References and Student Works**

Figure 1. Excerpt of the 2017-2037 design timescape created during a design futuring workshop I facilitated for Inner West Council "Creating Our Inner West 2036" with sketch-noted details created by Tasman Munro and Will Owen Scott Kemmis (2017).

Figure 2. Design Timescape exploring Little Sun precedents and possible futures by student Dylan Mackey. Image included with permission from Mackey.

Figure 3. Design Timescape exploring Stop Adani precedents and possible futures by student Mia Flokis. Image included with permission from Flokis.

Figure 4. Jeannie Baker, sequence of images from Window (1991). https://www.jeanniebaker.com/focus/window-on-a-changing-world/

Figure 5. Mona Chalabi (2019, January 31), How measles outbreaks have spread amid the anti-vaccine movement, The Guardian, https://www.theguardian.com/news/datablog/2019/jan/31/measles-outbreaks-us-anti-vaccine-movement.

Figure 6. Five square futuring template given to students in their first tutorial.

Figure 7. Riu Fukazawa's Task 2A: 'Hey Pfizer' planning sketch – permission granted.

Figure 8. Jessica Tan's Task 2A: '#FreeTheVaccine' planning sketch – permission granted.

Figure 9. Riu Fukazawa's Task 2B: 'Futuring Vaccine Inequality' design timescape – permission granted.

Figure 10. Jessica Tan's Task 2B: 'The Key to Vaccine Equity' design timescape – permission granted.

Figure 11. Purvi Bothra's Task 2B: 'Patent Monopoly' design timescape poster – permission granted.

Figure 12. Jana Plumm's Task 2B: 'Futuring Lives Over Profit' design timescape poster – permission granted.