

V5.03

Using Webcomics to Communicate Future-Oriented Design Concepts

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Existing Speculative Critical Design

An interest in exploring possible ways to use emerging technologies (such as advancements in wearable technologies, biotechnology, communication technologies, and virtual and augmented reality, among many others) in design has begun to appear in design research. This trend has led to the development of a number of methods to explore these possibilities through design, including Critical Design, Speculative Design, Design Fiction, and Ludic Design (these practices are often discussed under the umbrella term Speculative Critical Design or SCD, and will be referred to as such in this paper). Design researcher Matt Malpass suggests that designers, who use these approaches to create hypothetical product designs, aim to explore and situate emerging developments in science and technology in the context of everyday use.¹ Academic Carl DiSalvo elaborates on this description, suggesting that each of these practices aims to explore and convey ideas in a provocative manner.² These experimental approaches to design have attracted criticism claiming that they are becoming introverted.³ The

approaches are criticized for ignoring opportunities to engage a wider audience of non-designers in the discussion and criticism of design, its relationship with emerging technology, and its influence on culture and society in the future.⁴ These criticisms of SCD refer to both the content of SCD and the manner in which it is communicated and shared with audiences.

Many SCD projects take the form of semi-functional or non-functional prototypes that are displayed in museums and galleries, sometimes alongside other explanatory material.⁵ While exhibiting in galleries allows for a physical prototype to be displayed, Cameron Tonkinwise has suggested that such settings do not fully contextualize SCD works nor do they always offer the opportunity to physically interact with SCD prototypes.⁶ However, some recent exhibitions of SCD have been supported with public talks and workshops which provide opportunities for audiences to engage directly with prototypes and processes on display. One example is the *Climactic Post Normal Design* exhibition and workshop held at Carnegie Mellon University's Miller Gallery in 2016 (curated by Katherine Moline, Ahmed Ansari, and Deepa Butoliya).⁷ There are also geographical restrictions associated with exhibiting SCD objects. Exhibiting in gallery and museum spaces requires audiences to come to them; this means that individuals who do not have the means to travel are unable to attend SCD exhibitions. Therefore, exhibitions are more likely to be visited by locals or those who are wealthy enough to travel to a particular city where an exhibition is being held. This restricts the size and diversity of audiences able to interact with the SCD prototypes on display.⁸

Other SCD projects use video to communicate speculative design ideas that are then presented within exhibitions or posted online. While video does not suffer from the same geographical restriction as exhibiting in physical spaces, both of these strategies do require large resource investments on the part of the designer. This is particularly evident in work produced by interdisciplinary speculative practitioners Lucy McRae⁹ and Sputniko!¹⁰ Both artists produce videos that feature elaborate sets, props, and additional actors to convey their speculative ideas. In addition to criticisms of accessibility for both audiences and creators, there

are significant criticisms of the content that existing SCD projects cover. It has been suggested that SCD is too focused on Western values of consumerism and middle class ideals,¹¹ and that it avoids challenging the political aspects of mainstream design as well as failing to represent diverse human experiences.¹²

Combining Future Scenarios and Design

Future oriented webcomics that contextualize SCD concepts could be used to address the current problems of accessibility and content in contemporary SCD practice. SCD has an existing connection to futuring practices, and has been described by future scenario planner Noah Raford as a futuring practice in its own right.¹³ While existing SCD addresses future issues by exploring emerging technologies in the context of design, it lacks a formal process for exploring the pluralistic nature of futuring. Thus, it seems that there is room in SCD practice for a structured approach to developing, exploring, and communicating possible design futures that represent a broad range of experiences.

Scenario Planning and Abbreviated Scenario Thinking

Scenario Planning is the process of developing multiple scenarios that reflect how the future could evolve based on the research of different factors (e.g. political, economic, social, and cultural)¹⁴ to make subconscious biases and assumptions visible, and to support strategic decision making, particularly in business.¹⁵ It is an approach to futuring that can be adapted to add context to the futures conveyed with SCD projects. Innovation researcher Yasser Bhatti, design researcher Lucy Kimbell, and scenario planning researchers Rafael Ramirez and Cynthia Selin have advocated for futuring and design to be more formally combined. They suggest that both professional scenario planning¹⁶ and professional design could benefit from collaborative practice.¹⁷ Abbreviated scenario thinking (as described by management and business academics Kathleen and Ralph Wilburn)¹⁸ offers a scenario planning approach that could be combined with webcomic based storytelling. This process involves using existing global scenar-

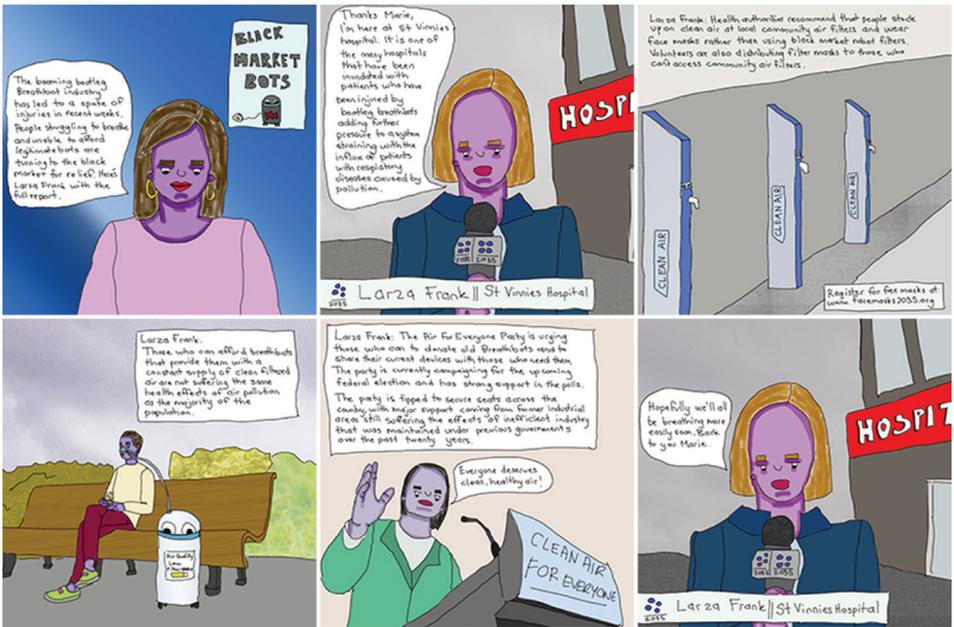


Figure 1. An example of a niche future scenario webcomic developed using the abbreviated scenario thinking process based on a global by the National Intelligence Council,²¹ "Pollution Affects Health... How Will This Pan Out for Us in the Future?" Hannah Greethead, Sydney, 2017 © Hannah Greethead

ios produced by external organizations (Such as the World Economic Forum, Royal Dutch Shell, and the National Intelligence Council) as a basis for niche scenarios to then be created.¹⁹ Considering the assertion that design could be enhanced through the use of pluralist scenario planning²⁰ and the criticisms of existing SCD as being inaccessible and narrowly focused, a process of webcomic based storytelling combined with abbreviated scenario thinking could offer an alternative approach to developing and communicating SCD concepts. Adding abbreviated scenario thinking strategies to the SCD design process could enable SCD concepts to be developed and communicated in a way that more holistically demonstrates how different cultural, political, and societal factors affect how a design is adopted, used, and appropriated in different future scenarios. In the case of SCD, the niche scenario is created when the designer places a design intervention into the future scenario described in the externally produced global scenario and considers how design intervention might exist in that possible future (Fig 1).

The use of existing global scenarios provides a background in which to consider how a particular design or emerging technology might influence and be influenced by society and the people who use it. This strategy could be particularly useful for independent designers, design researchers, and those working in small teams as the use of existing scenarios means that less time needs to be spent researching and developing original scenarios.²² Wilburn and Wilburn also discuss storytelling as a tool for communicating these niche scenarios, stating that effective storytelling involves presenting a plausible future scenario as it is plausibility that can prompt action regarding that possible scenario (e.g. taking steps to work towards a particular scenario or steps to avoid certain events from occurring).²³ Webcomics offer an exciting medium for conveying the stories of these possible design futures.



Communication Using Webcomics

Comics are a distinct medium that involves the use of images (sometimes featuring text) that are juxtaposed together in a sequence to show the passing of time.²⁴ Traditionally comics have been published via print media (comic books and newspapers), but more recent developments in web 2.0 publishing technologies have led to an increasing number of comics being published online.²⁵ The term webcomics refers to comics that have been produced specifically for online publication, usually by an independent creator.²⁶ It has been suggested that publishing comics online allows comic writers more independence than those writing for traditional comics publishers. In an online article from 2004, Sean Fenty, Trena Houp, and Laurie Taylor suggest that publishing online allows comic creators to publish offbeat content that is often not present in mainstream print comics.²⁷ This is an idea supported by academic Marianne Hicks who suggests that webcomics have greater opportunity to challenge or reinforce contemporary ideologies because the internet, unlike other forms of media, is a space that historically has not been subject to censorship.²⁸ The use of web 2.0 technologies (such as blogs and social media) also means that it is

less expensive and less time consuming to publish and promote new webcomics compared to traditional publishing methods. The social nature of these platforms also enhances opportunities for collaboration and discussion between webcomic creators and webcomic readers.

There is an existing relationship between comics and design. Comics have already been used to some extent in SCD. Comic-style diagrams are used in the Near Future Laboratory project *Curious Rituals*²⁹ to illustrate research findings that uncovered the different ways that people hold and use their phones and other gadgets. This research was formatted as a print document and PDF, and accompanies the film *Curious Rituals: A Digital Tomorrow*³⁰ that explored possible interactions that might develop with the daily use of emerging technologies. Designer Marti Guixé was an early instigator of comics and webcomics as supporting information for his critical and speculative design concepts since the late 1990s.³¹ In addition to creating working prototypes, Guixé developed comic illustrations to demonstrate how a design could be used. Guixé has described this technique as a combination of comics and user instructions.³²



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Comics have also started to have a presence in design research. While design research has historically been presented in the form of written academic papers, methods for presenting research in a more “designerly” way have recently been investigated. In a recent paper, researchers Mark Blythe, Thomas Dykes, Tim Regan, James Thomas, and Jayne Wallace discussed the potential for design research to be communicated through comics.³³ While research papers often accompany practice based design research³⁴ they can

be seen as scientific and dry. Alternatively, comics have strong ties to popular culture and their graphic nature makes in-depth information quick and easy to consume.³⁵ The visual nature of comics and their ability to show the passing of time makes them suitable for depicting interaction, something that is particularly important in Human Computer Interaction (HCI) design research³⁶ and similarly for depicting interactions with future-focused designs that do not yet exist. The existing relationship between comics and SCD, evidenced in the practice of The Near Future Laboratory and Guixé, combined with the usefulness of storytelling to convey future scenarios and the DIY publishing opportunities offered by web 2.0 technologies sets a precedent for the use of webcomics to communicate future-oriented SCD scenarios. While the combination of abbreviated scenario thinking and future-oriented design webcomics offers a way for SCD practice to tackle some of the criticism it is currently facing, there are some limitations that could impact the usefulness of a webcomic-based practice.

While the benefits of the internet (less censorship and editorial limitations) as a publishing space are known,³⁷ it should be noted that the advantages are not universal. In recent years, many countries have imposed more censorship and surveillance measures online. Government and corporate surveillance and the fear of discipline by those parties can lead to internet users engaging in self-censorship.³⁸ A widespread culture of self-censorship means that certain ideas, that might be considered subversive or controversial, may not be shared widely online.³⁹ Self-censorship along with government-facilitated restrictions could mean that individuals in countries that exercise internet surveillance and censorship may be less likely to access provocative ideas that could be conveyed within future-focused design webcomics. This could also mean that citizens may be less likely to contribute their own speculative and critical design ideas online.

An estimated 50.37% of the global population has no internet access (compared to 49.63% in 2017),⁴⁰ leaving them unable to view and discuss design ideas communicated online. Another issue with the use of the internet as a platform for dissemination is the large amount of existing online content. The fast pace of internet publishing and plethora of content makes it difficult for new content creators to harness significant audiences for their work.

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When considering the product-oriented nature of design, another limitation to the use of webcomics as a communication tool for speculative product design is their two-dimensional nature. Webcomics are only able to represent products graphically, and thus, do not allow for physical interactions with prototypes, something that is important for gaining the full sense of how successful or influential a new design might be.⁴¹ For this reason, future-focused design webcomics might be appropriate for gaining feedback and exploring the consequences of a design concept before investing in the material realization of new designs.

The combination of abbreviated scenario thinking strategies with SCD and the use of webcomics to communicate SCD concepts in future settings, offers an opportunity to make SCD more accessible to wider audiences beyond the design enclave. Publishing concepts online as niche future scenarios means that a more globalized audience is able to observe the ideas conveyed (as opposed to a museum or gallery exhibition). When compared to other forms of communication commonly used in SCD (such as exhibiting prototypes or design fiction films), SCD webcomics can be used to quickly convey rich information without large investments of time and physical resources. Tapping into global scenarios that have been produced by external organizations using the abbreviated scenario thinking process might allow for an SCD practice to develop in a way that looks beyond western concerns. This could lead to the formation of a more pluralist approach to considering the consequences of design and technology in a range of possible futures. This method for developing and communicating SCD aims to be neither utopian nor dystopian, but rather aims to explore a multitude of what-ifs as an ongoing practice that explores and questions the role of design in the future. ■

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Australian Government Research Training Scholarship.

Endnotes

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