The Open Futures Library: One Step Toward a Global Foresight Commons

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This report introduces the Open Futures Library, outlines our hopes for its future development and invites you to join us and help shape this community resource. The Open Futures Library can be found at http://openfutures.net, it is a free, publicly-contributed, indexed, searchable collection of future scenarios and other depictions of the future, which we hope will be a component of a larger global foresight commons.

Scenarios are deeply woven into the history of futures studies and strategic foresight, and have become a core method and practice that is considered consistent with the indeterminacy of social change. As Dator argued in his first law of futures studies: "The future' cannot be 'predicted' because 'the future' does not exist" (Dator, 1995). By extension, "the future" exists within us, as we explore, attempt to understand and imagine alternative futures, each with various assumptions attached to them, both possibilities and probabilities, or even improbabilities. Further to this, diversity in thinking about the future has also become an ethical norm. We do not want to be forced to subscribe to a single vision of the future, we want to have the freedom to imagine many futures that are personal to us and marked by distinctiveness.

Every year futurists create hundreds of scenarios; designers, scientists, artists, filmmakers and others also create many depictions of alternative futures. Yet these typically appear on websites, some of which have a flurry of activity associated with them and then disappear from public view - and a great resource is wasted.

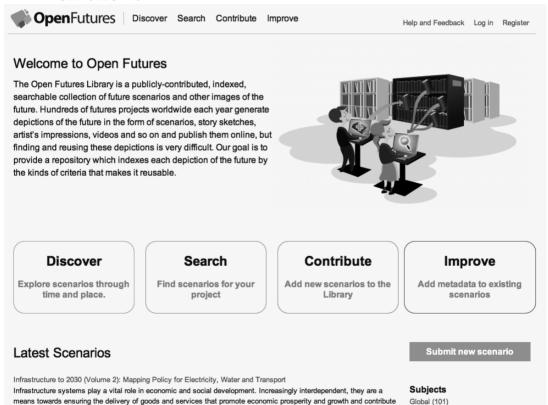
In our work with the Smart Service CRC (as part of the Services 2020 project) we became interested in the potential to use existing scenarios as a low-cost way of prompting discussions about the future – discussions which supported other methods we used. We felt

that there was great potential to explore new methods for small to medium sized organizations which wouldn't normally have the resources for larger scale futures projects.

Exploring this idea with other futurists we found that many already maintained a set of interesting scenarios. We also found that larger organisations like the Institute for the Future (IftF) and even the Australian Tax Office (ATO) maintain lists of interesting scenarios.

For non-futurists who are not regularly scanning for scenarios, the process of finding them (outside of a few regular publishers like Shell) can be difficult and time consuming, especially if you have several topic areas to investigate. We felt there was an emerging need for a single location where people can store and explore these depictions of alternative futures and the Open Futures Library is our answer to this problem. Our goal with the Open Futures Library is to provide a repository which indexes each depiction of the future by the kinds of criteria that makes it reusable and easily accessible for anyone.

How it works

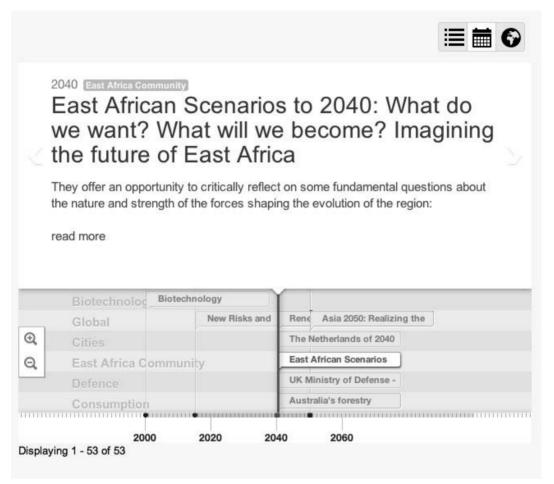


The current implementation has four key functions: Search, Discover, Contribute and Improve: 'Search' provides the ability to find scenarios based on geography (e.g. Africa) and time frame (e.g. 2030), 'Discover' provides the ability to search for scenarios based on specific search terms (e.g. energy, finance etc.), 'Contribute'

Energy (35)

to quality of life.

provides the ability to contribute to the library scenarios, and Improve provides the ability to join the team and improve the library by adding categories ("metadata") to existing scenarios and cleaning up existing entries.



The Library allows users to search for scenarios by time horizon. Let's say that you want to find out about all scenarios that concern the timeframe from 2040 to 2050. In the search terms you can specify a start year (2040) and end year (2050). The OFL will then find any scenario that has projections within that range of years. We specifically made the time function able to log retrospective scenarios (e.g. 2000) so that people could look at how scenarios that depict how (for example) 2010 would be like, can be compared with what actually happened in 2010.



In addition, the Library allows users to search for scenarios by geography. Let's say that you want to find out about all scenarios that concern Africa. By putting the search term "Africa" into the search area, and going to the map icon, any scenario that concerns Africa in the database is revealed. An advantage of the geography function is that it shows which regions are not represented by scenario research and development, and what regions might be under resourced with respect to imagining alternative futures and scenarios. The geography function was developed to both make it easy to find scenarios based on geography, but also to show the imbalances and the unequal nature of scenario work, so that this can be better addressed.



The Library also allows users to search for scenarios by specific subject terms. Let's say that you want to find out all scenario research on energy futures, by putting in "energy" into the subject terms you will get any scenarios that have been tagged concerning energy, and this can be depicted by geography, time frame or subject metadata.

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Search
Enter your keywords finance
                                                                 Search scenarios only. Search
  · Advanced search
Search results
   In safe hands? The future of Financial Services
     ... is one of the questions underlying Long Finance's goal to improve society's understanding and use of
     finance over the long term. In contrast to the short-termismthat defines ... economic views, 40 years is only
     themediumtermfor the Long Finance initiative. 40 years is however, beyondmost normal planning periods.
     Anonymous - 10/06/2013 - 23:43 - 0 comments
   Multipolarity: The New Global Economy - Global Development Horizons 2011
     ... a powerful force in international production, trade, and finance. Emerging and developing countries' share
     of international trade ... Global Economy Finance Business Publisher ...
     Anonymous - 10/06/2013 - 23:44 - 0 comments
   Public Debt 2020: A sustainability analysis for DM and EM economies
     ... Europe Subject and Keywords Finance Economy Debt Publisher ...
     Anonymous - 10/06/2013 - 23:43 - 0 comments
   Euro, Dollar, Yuan Uncertainties - Scenarios on the Future of the International Monetary System
     ... Subject and Keywords Global Finance Image Creator ...
     Anonymous - 10/06/2013 - 23:44 - 0 comments
   Public debt in 2020: Structure Matters! A new scenario tool applied to Latin America
     ... Econocy Debt Finance Latin America ...
     Anonymous - 10/06/2013 - 23:44 - 0 comments
   The Future of Money
     ... Subject and Keywords Global Finance Money Currencies ...
     Anonymous - 10/06/2013 - 23:44 - 0 comments
   Public Debt in 2020: Monitoring fiscal risks in developed markets
     ... Subject and Keywords Global Finance Economy Debt Publisher ...
     Anonymous - 10/06/2013 - 23:44 - 0 comments
   The Oxford Scenarios: Beyond the Financial Crisis - Scenarios for Growth & Health
     ... Subject and Keywords Global Finance Financial Markets Banking ...
     Anonymous - 10/06/2013 - 23:44 - 0 comments
   RB - Economic scenario - Our scenario for Germany in 2013
     ... Germany Economy Finance Banking Publisher Roland ...
     Anonymous - 10/06/2013 - 23:43 - 0 comments
   Scenarios for 2025
     ... Subject and Keywords Global Finance Demographics Pensions ...
     gareth - 09/29/2013 - 23:15 - 0 comments
                                             1 2 next > last »
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The easiest way to search the library is simply by putting in a search term, which gives you a quick overview of anything that overlaps, for example for "finance".

Contribute to the Library

Everyone is welcome to contribute to Open Futures. This is a community of academics, futurists, researchers, planners and students. We're aiming to create an open and inclusive platform where people can collate, discover and contribute their scenario work.



Contribute enables member users to add new material to the database. All scenarios must have a minimum of the title, and the URL link to the primary source loaded. Extra information which will make the scenario more easily used can be added. This includes:

- A brief description
- Time horizon
- · Creation date
- · Subject keywords
- · Rights
- · Associated images
- Location, creator and publisher.

If you're feeling inspired and generous, you too can contribute your own knowledge and resources for scenarios and depictions of alternative futures. If you are a futurist who has been collecting scenarios for the past few years, you may want to contribute your personal collection (As Dr. Noah Raford did for us). You may work in an institution that does futures research or scenario work, and perhaps your institution has a number of scenario projects that you would like to make public. In addition to making them public on your own website, you can also put them in the OFL so that they are a resource for global citizens. Let's say you are a researcher who has written a number of scenarios for a particular publication or journal. You can input your scenario work in short form, and then refer to the Journal article by weblink. Or let's say you are a speculative designer (design futures / design fiction) and create visually provocative images of possible futures, you can also add files or links for speculative futures content.

Improve scenario metadata

Some scenarios that have been added only have the bare basics. Another way to contribute to the library is to dig into existing scenarios and update their metadata to make them more findable. As the library grows, we rely on our community to help maintain the quality of the corpus.



As the scenarios do not have to be loaded up with all the metadata, we included the 'Improve' function to allow members to add missing data descriptions, timeline and location. There are other supporting functions, such as a feedback and help. At present we have loaded the database with approximately 200 seed items - hopefully enough to be interesting to explore, but plenty of space for people to add their contributions.

There are many ways of improving the library. As you search through different scenarios, you may notice that different tags and categories should be added to particular scenarios. You can become a registered member of the website, which gives you tagging and editing privileges. Important roles for the future development of the open futures library includes library contributors, moderators and promoters.

To ease rights management issues, in most cases the database only stores the metadata and description of the scenario with a URL linking it to the canonical source of the scenario (usually a web page or PDF document online). There is the facility to load the original documentation where the rights allow for storage on another database.

This is the first development of the Library and we hope that this is the starting point for developing a larger community resource. While we have ideas, which we'll outline later in this report, we want to be community-led so we invite you to join the community and help us shape the next stage of the Open Futures Library's development.

The Library as part of a Global Foresight Commons

The desire and need to create a global foresight commons has been articulated by several leading figures. Carol Dumaine envisioned a global foresight commons as, "a network of globally distributed and shared resources, between people, institutions, businesses and other communities, which provides a increasing and useful pool of knowledge, ideas, and capabilities that potentiate all of humanities capacity to think about our shared futures in effective ways" (Dumaine, 2010). In a similar vein Jerome Glenn of the Millennium Project discusses the need for a "Global Futures Intelligence System," as an approach "to bringing important information about the future together with expert judgments and decision support software in new structures for continuous updating and improvements to create collective intelligence and wisdom about the future" (Glenn, 2014).

Our vision for the Library is to be a component of that global foresight commons architecture; to provide a space and an opportunity for the co-creation of value between the originators of the scenario sets and the people who can use and enrich the scenario set with supporting material.

Some of the supporting functionality would need to be developed in subsequent iterations of the Library to make this a reality. We also have to reach out to a variety of communities outside of the futures discipline as well as the futures community. This includes organizations and people who are interested in thinking about the future and want to use futures material in their work, and other disciplines which may be able to create and contribute to existing futures work.

General Use

As we noted earlier we have already found a government organization (the Australian Tax Office) which uses and maintains a list of scenarios, no doubt there are many more around the world. At its simplest level the database is a place to store and look up scenarios that would otherwise be listed on spreadsheets. Having a

global repository and many contributors would increase the scope and coverage for these organizations.

The database provides an easy entry point for organizations that might not have engaged in futures work to have access to quality material that can be used to inform strategy and decision making. Many of the scenarios produced each year are very well researched and developed by authorities in the field – the expertise and authority embedded in a collection of high-quality scenarios can provide legitimacy to discussions which otherwise might be difficult to have. We also acknowledge that not all entries will be well researched, so adding commentary and rating functions are on the cards.

While scenarios may be developed for particular locations they often incorporate global emerging issues and trends which make them applicable to other similar locations. As an example: an organization might be interested in transport. Reviewing several sets of scenarios with a transport theme (the Library has 13 so far) would reveal common themes as well as differences in opinion on timeframes for the adoption of technologies or new practices. Some have a global focus, while others are focused on more specific topics (e.g. rail). The collection provides a broad overview of current expert thinking and allows the organization to consider how local implementations may differ. This doesn't necessarily negate the organization's need to undertake original futures work but may reveal where the really juicy topic areas are. Scenarios developed for specific regions can also be used as entry points for other places, for example the "Intelligent Infrastructure" scenarios for the UK will have aspects that could apply to cities in many other countries. Governments may want to research across several themes and look for elements that can be applied and re-localized to their contexts.

The database also hosts videos and images which can be used by organizations as well as the scenarios reports. Having a repository of these provides an opportunity to use material from several sources to convey aspects of a larger scenario, even though the two were developed independently.

This type of use of scenarios does in some ways represent a challenge to the futures community where the notion that the 'journey' for participants who create the scenarios is often seen as most important part of the process rather than the final artifacts. Yet scenarios sets are published every year by large and small organizations so there must be an underlying intent for these to provoke discussion, challenge and change thinking in people who were not participants; or why would we publish them? Working with sets of scenarios represents a challenge to develop new methods to utilize their nascent value.

More organizations using and engaging with futures materials, even if they are not employing futurists directly in the first instance, would benefit the futures profession as a whole.

Trans disciplinary co-creation

A more explicit opportunity for the co-creation of value from having a global open repository is the opportunity for people to enrich existing scenarios. In its simplest form this can be comments about the scenarios or how people have used them. Another simple way would be to add comments noting, say, video footage, images or stories that might be representative of a scenario.

Our vision extends this idea to provide opportunities for artists, designers,

manufacturers, filmmakers, and other people to be part of the creative ecosystem that adds to existing scenarios. These people can create new material as a contribution to an existing scenario, enhancing it. For example, a design student can use a scenario as a source of inspiration. A business strategist might test a number of business models ("wind tunneling") within a set of scenarios, and post their results on the site. Our vision is for the Library to become a place where these designs and models are loaded and linked to the original scenarios, creating a multimedia scenario node. The scenario would be enhanced by these trans-disciplinary contributions, giving it more depth and showing the scenario creator how people have used, interpreted and indeed transformed it. Of course design is just one example, users can add stories, pictures, images and any other material also enhancing the original scenario set. Similarly people might find existing stories, images that are relevant to an existing scenario set and add this material and link it to the scenario. Or they may choose to in-cast a particular scenario in a way specific to their purposes, and then to link this in-cast to the scenario.

By creating this eco-system people are able to engage with futures work in new ways and we take a small step towards Carol Dumaine's vision of shared resources between many communities and building the capacity to engaged with our shared futures in new ways.

Other ideas for the Futures Studies field

Here are some other rough examples of what we might be able to develop:

Trending Futures

Most scenarios come with a dates attached along the lines of 'the futures of work in 2035'. The different scenarios are implicitly situated in different areas of the futures cone. There's usually a business as usual in the projected zone, others are typically in the probable or plausible zones and fewer further out. Working with sets we could imagine looking at sets of scenarios some years after their release are recasting them in the futures in cone in terms of time and location in the futures cone. This could be repeated over time so we could track scenarios over time. Maybe this could be could be done on a larger scale using social media so we could have trending futures.

Creating new scenarios from several depictions or themes across scenarios

As we noted earlier scenarios might be enriched from contributions from others by people linking existing or creating new designs, pictures, stories or films that add to existing scenarios. These contributions and themes from existing scenarios could be used to create new scenarios or to take general global scenarios and make them come alive in specific contexts, e.g. taking a global scenario set like the DHL scenarios (http://openfutures.net/node/858) and applied to another theme, say health, or a location.

Sharing practice and scenario in use

We hope to enhance the existing functionality to support better conversations between users about the scenarios and groups of scenarios. There will be many ideas and many ways of using scenarios that could emerge from having a central repository. Having a place to discuss scenarios and the utility of scenarios we think will be a core component of later iterations of the Library.

Exploring current practice

Working with sets of scenarios will help researchers explore the utility of scenarios more easily; this may help us understand whether the scenarios made a difference to the organization or community which commissioned them. Scenarios could be analyzed by creation date, method, time, utility, closeness to actual reality that came about or just how "ridiculous" they seemed at the time, but then in retrospect not so "ridiculous" after all, thus reflecting Jim Dator's second law of futures studies, "Any useful idea about the futures should appear to be ridiculous" (Dator, 1995).

One idea by Peter Hayward, born out of trending futures, was to examine sets of scenarios by using a morphological grid. For example, one might imagine a simple grid which considers global warming in degrees from 0 to 6, say, and energy availability from Stone Age to free and abundant. Scenarios could be allocated in the grid, based on what temperature and energy availability was assumed in the scenarios, whether or not those were the themes of the scenario. What would this say about our practice? It also provides an escape route, especially for a specific theme, where the gaps can just be filled in with new scenarios or depictions of the future.

These are some of our thoughts as to where we could take the next stage of the Open Future Library. However, this is no longer our library - it's yours. We invite you to join the Library, give us your thoughts, feedback and shape the next stage of this project.

Toward a Global Foresight Commons

The current form of Open Futures Library is very much a starting point and we hope and envision its development as we have outlined above. We have presented a sample of our ideas for the Library's potential uses, users and development opportunities and we are sure that this is only a fraction of what might be achieved. We are looking for support and guidance for the next stage of the Library's development; for contributions and for support in engaging other communities in the database. We welcome your guidance for the next stage of the Library's life, whilst we have our ideas we view this library as a community resources so we are looking to be led by what the community needs, and that means "you".

We believe, for humanity to navigate a complex and daunting 21st century, we will need to create global capabilities for new thinking, practice, infrastructure, processes and resources that lift and enhance people's foresight-ability everywhere, to understand critical emerging issues, to identify strategic leverage points, to articulate preferred futures and to design new systems.

The vision of a global foresight commons is to increase all of humanity's capacity to think about and create better shared futures. To make an effective commons we need to find ways to have valuable conversations about the future that are engaging, useful and challenging. We need to find new ways to co-create value in these conversations to so that challenging the idea of 'the Future' becomes the norm and the use of futures more prevalent. The Open Futures Library offers a degree of co-creation and we hope to build more functionality to support deeper conversations

and more value co-creation opportunities.

We hope that the Open Futures Library can be a modest yet concrete contribution toward this imagined Global Foresight Commons, a globally distributed network of resources that helps humanity to cognize and create its shared futures and the next stage of a peaceful and prosperous global civilization.

Acknowledgements

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Reference

Dator, J. (1995). What futures studies is and is not. Retrieved on May 1, 2014, from http://futures.hawaii.edu/publications/futures-studies/WhatFSis1995.pdf

Dumaine, C. (2010). On a Global Foresight Commons. Retrieved on Dec 30, 2013, from http://seedmagazine.com/content/article/on_a_global_foresight_commons/

Glenn, J. (2014). 2013-14 State of the Future Report. *Journal of Futures Studies*, *18*(4), 107-118.