

Pattern Languages Will Save the World! (Or at least substantially contribute)

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The idea of patterns and pattern languages was launched with the publication of *A Pattern Language* (Alexander 1977). The book contained 253 “patterns”, each one of which was intended to help address a common problem in the built environment. The patterns were general enough to allow the people who applied them to adapt them to their local circumstances. Significantly, they were not only concerned about what was being designed—a room, a house, a town or a region, for example—but also the environment that surrounded what was being designed: They were intended to help “repair the world” around them. This report is a reflection on the *Save the World with Patterns and Pattern Languages* workshop, an *Imagination Run Wild* session held at PLoP 2025. It builds on both the pattern language framework and the perspective by suggesting that this approach, imagined broadly, could help form the inspiration *for* as well as the platform *through which*, the type of transdisciplinary, cross-sectoral, and global work that is needed to help address the environmental and social challenges we face today could be organized. The report suggests two pattern language oriented collaborative enterprises. The first is the development of a “Save the World” pattern language and the second is a “Pattern Universe” collaborative platform that would integrate and share pattern languages in various domains and support the life-cycles of patterns, pattern languages, and projects using pattern languages. The authors invite the broader community to take part in the development and use of these enterprises—and others—and encourage anybody who might be interested to contact them.

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General Terms: Human Factors

Additional Key Words and Phrases: pattern, pattern language, collaboration, seeds, public problem-solving, social change, wicked problems, social responsibility

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1. Introduction

This report is a reflection on the *Save the World with Patterns and Pattern Languages* workshop, an *Imagination Run Wild* session held at PLoP 2025. Although time went by too quickly and the rich conversation around the topic was not captured assiduously, the shared sentiment was that this proposed project should be carried on beyond the workshop. In fact, it is demanded by historical circumstances and the responsibilities expressed by this community.

The original purpose of this session was to identify pattern ideas that would help move the pattern language perspective and practices into a more central location in addressing the world's significant problems. It was motivated by the ideas that were expressed in *A Pattern Language*, the first pattern language book (Alexander 1977): first, that patterns are intended to help address a problem (but *not* specifying exactly how to do so); second, that patterns are intended to be used with other patterns, and third, that patterns must “repair the world” around them. The session was also inspired by one of the author's original “Seeds” paper (Schuler 2014a) and the updated one developed for PLoP 2025 (Schuler 2026). These seeds to a large degree were intended to point out ways in which we think about patterns, especially considering how the situation has changed in relation to patterns since their inception. These changes include, for example, the large number of patterns and pattern languages that have been created; changes in assumptions about their ability to “solve” wicked problems; the need to combine and collectively use patterns from multiple pattern languages; the need to deprecate certain patterns that might not have aged well;

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The need to go beyond the focus on developing and writing patterns, moving in the direction of spreading their knowledge more widely; and, finally, the largely under-examined area of challenges to pattern usage.

This exploration in applied utopian thinking identifies various threads, principles, and values of the pattern language community and suggests purposefully building and expanding on them. Although the primary audience for this report is those who are already acquainted with patterns and pattern languages, one of the broad aims of this work is to extend our community to include many other individuals and groups who are addressing significant challenges of shared concerns and embrace the need for deeper collaboration and shared and evolving knowledge bases. Ideally it will be useful to both groups, and we encourage collaboration from both groups.

While the workshop was designed to be conducted more formally, the conversation among the attendees (Kyle Brown, Charles Danoff, Karl Evard, Takashi Iba, Douglas Schuler, and Rebecca Wirfs-Brock) that we had instead was not moderated. It still was very productive. There was a consensus that an ongoing project along these lines was necessary. Almost all of the time in the session was spent discussing how we should proceed and what ideas and perspectives would inform the project.

2. Rationale

Humankind is facing staggering, complex, and interacting environmental and social challenges. Environmentally the world is approaching unprecedented tipping points and planetary boundaries with uncertain, destructive, consequences. Significantly, these are largely challenges that have been initiated and cultivated by humans, and those who are putatively tasked with addressing them, are not necessarily doing so, and, in fact, are often exacerbating them.

As researchers and practitioners, we believe that patterns and pattern languages, both in their conceptualization and in their application, could serve useful purposes in addressing these challenges (Schuler et al 2020). For one thing, pattern languages are intentionally designed to address significant challenges. For another thing, patterns are non-deterministic. This is a feature, not a bug, because situations, even similar ones, are not identical. Alexander (1977) put it this way: “Each pattern describes a problem which occurs over and over again in our environment, and then describes the core of the solution to that problem, in such a way that you can use the solution a million times over, without ever doing it the same way twice.” And patterns are almost always part of larger sets of patterns which are intended to be used with each other. Hence, they reflect a complex reality that is more accurate and relevant for the complexity that the “real world” with all its challenges presents. Patterns are inherently action-oriented (via challenge-action pairs) and they help advance the portability of insights across communities. Finally, patterns and pattern languages are interdisciplinary and can provide terms to bridge and align the perspectives of diverse social communities.

We identified two main areas of work: (1) A “Saving the World” pattern language, and (2) A “Pattern Universe,” a socio-technological platform / project for promoting collaborative work around patterns and pattern languages that lead to actual positive impact in the real world. Both projects would require research, technological innovation, and general mobilization. The first project is easier to achieve and could start immediately. For a community steeped in pattern language development, generating a fair number of patterns for any domain, seems like not a tall order—even for such a seemingly audacious domain such as “saving the world.” One of the goals of the first project is to determine and define requirements for the second. At the same time, we must admit that the second is more complex and we are essentially proposing the integration of untold pattern languages into a legible “universe” or “ecosystem” in which people can develop and find patterns—and can individually and collaboratively develop and conduct projects using the system.

We argue that many of the elements for this project are already in place. This includes a growing, evolving, emerging consensus about the precariousness of the world situation and the insufficiency of current responses. It also includes our focus on patterns and pattern languages, and how we think about them—especially as they relate to so-called “wicked problems” (Rittel and Webber 1973). Resources include a very large base of existing patterns, a motivated community of advocates, and existing—and in-work—computational infrastructure.

At this point, however, the focused, explicit, and coordinated effort that we need is *not* underway. The purpose behind the first proposed project is to help lay some groundwork for that effort. This could include developing a richer understanding of the challenges—the evidence, forces, players, etc.—and the insufficiency of current

shapproaches. Based on that groundwork, we can then think about what kinds of tools we would need, the assets we have and what types of responses would be appropriate.

Based on the shared interests in patterns and pattern languages, collaboratively developing a pattern language based on this theme seems an obvious next step. At the same time, it is also worth considering what an accessible online *ecosystem* of pattern languages for saving the world might look like. Concurrent with this effort would be an ongoing research project into the viability of a broad, transdisciplinary pattern language collaborative program.

That the need is there, is as obvious as the ominous observation that the window to act on that need is quickly closing. In short, we need to put our money where our mouths are. *Now*.

3. Background Considerations

In our session, and based on suggestions from Takashi Iba we acknowledged that things have changed since Alexander and his colleagues developed *A Pattern Language*. Although the matter was not formally resolved within our group, we would agree that regardless of the complexity of the *world*, our thinking in relation to the world has changed; it has evolved to acknowledge that the world today is complex and chaotic—and replete with tangible threats. Alexander and his associates were primarily looking at the role of architecture and the built environment and, while this perspective is critical, our work now and today's confluence of factors suggests going beyond that: structure for human habitation is just one domain in a system of overlapping and interacting domains.

Takashi also mentioned that *nature* is not invariant (or silent and unchanging) but is a dynamic and responsive force that should also be considered as a “user” or, even, a “client” of pattern languages. How this perspective shapes our work will be determined over time, but for now at least, it means that the pattern language we develop—and the pattern ecosystem we are also envisioning—should adapt over time, a capability that should be integral to the system.

At the same time that we were talking about fairly high-level perspectives, other more pragmatic imperatives were raised, including the importance of diverse perspectives and thoughts and of working with other communities (not just professional) and continuing to deliver meaningful “products” in a regular and ongoing manner. And, pattern ideas, proposals, or rough drafts, seem to lend themselves to incremental development.

As various factors have changed, shortcomings in the basic approach of the pattern community (including its assumptions) have become more pronounced. Calls for action should become more central to the work, and action itself becomes more critical, via the realizations that developing patterns is not sufficient. Sadly, the use of patterns by people in the “outside world” is relatively rare—or so it seems. Thus, giving more attention to the issues surrounding pattern usage, through working with people from various communities and demographics is critical.

4. A Pattern Language for Saving the World

A wish list for topics that the language would incorporate include challenges, perspectives, projects, resources, data and communication, strategies, tactics, actions and experiments. In relation to challenges, it is critical to note that the system of “antipatterns” that work together to degrade the environment and to sustain and cultivate inequality, oppression, and violence must be an essential element in our thinking and practice.

The Saving the World pattern language would ideally provide a window into existing pattern languages while inspiring others. And, ideally, the requirements for a pattern universe would be proposed and debated using orderly approaches—again, ideally, by way of patterns—and this type of meta-pattern could be debated and tried out as part of pattern validation which could be used in the follow-on project.

A pattern language for Saving the World is inherently a metapattern language since one of its intended outcomes are pattern languages. It is also a metapattern language in another sense since this pattern should contain the processes for generating pattern languages—including itself! This is, by necessity, a call for provisional patterns (what we call enabling-metapatterns in the Seeds paper (Schuler 2026)) that include, at the onset, our best guesses as to how these patterns should be created, located, discussed, used (with other patterns, most importantly), tested, evaluated, etc.

Given that it is premature to call this a work in progress at this very early stage, a proposal to the pattern language community (and beyond) to organize a pattern language at the highest level could at least provisionally proceed like this: Each of the following five categories would serve as a metapattern for a set of patterns below it. This framework

is based on the high-level categories that the one of the authors of this report and his students developed to depict what they believed are the main constituents of *civic intelligence* (Schuler 2014b), the capacity for individuals and groups to address shared problems effectively and equitably. We believe that this framework is general enough to accommodate groups of all sizes and compositions in terms of their civic intelligence. And, as with other types of intelligence, civic intelligence is contextual, it operates within an environment that it tries to understand and to deal with it appropriately. This means that as the situation within an environment grows graver and more complex—as is the case with our current world—the intelligence must adapt accordingly. Thus, from that perspective, the goals of the workshop are especially relevant.

The five categories are: (1) Knowledge; (2) Attitude and aspirations; (3) Organizational capital; (4) Relational / social capital; and (5) Financial, material, and other resources. Each describes a necessary component in addressing a shared problem. Note that, similarly with patterns, the way that each category is represented will depend on the challenges being addressed.

An abbreviated example of how the categories could be used would go something like this: An organization wants to work with a community that they feel strongly about (category 2), they start by exploring personal connections that they have to that community (category 4), the community lets them know what knowledge is important to the them, especially that which is implicit and especially relevant to this community (and, reciprocally, the organization lets the people in the community know what knowledge they think is important) (category 1); the community and the organizations develop plans (category 3) as to how they should proceed and identify the resources they have and the resources that they would need (category 5).

A variety of potential patterns and “seeds” come to mind in each of the five categories and are listed after each category description. Some of the pattern ideas are from published pattern languages, some are proposals, some are “seeds” from prior papers, some arose from the session at PLoP 2025 and some were added by the authors of this report. This accounting, however, is very rudimentary and suggestive; it represents some preliminary thoughts as to what belongs in the various categories.

(1) Knowledge

Knowledge refers to the set of features that facilitate the identification, gathering, disseminating, and use of various types of useful, transferable, relevant information. Generally speaking, this category would include all the knowledge that was relevant towards addressing a problem, including how the problem arises and is maintained, why it is a problem, and how it could be—and is being—addressed. Thus, the Saving the World pattern language would likely have patterns such as the following within this category: Ontology, organized, logical maps of the relevant knowledge under consideration; Reclaiming the Lifeworld, recognizing the importance of the world beyond humans; Back to the Roots including the uncovering of the “roots” of the challenges that are being addressed; Tacit, Local, and Informal knowledge in addition to formalized, universalized knowledge; Overlapping Domains and Polycentrism, recognition of the complexity and interconnections of nature, human knowledge and human affairs; Patterns as Social Objects, proposes new representational forms for patterns and pattern languages; and the Barriers and Opportunities that are related to and afforded by patterns and pattern languages.

(2) Attitude and Aspirations

Attitude and aspirations refer to the emotional, personal, and cultural features such as motivation and value. This category often is overlooked, especially when the assumption is made, often implicitly, that “knowing the facts” is basically all that is needed for addressing any given problem. Moreover, if people do not think addressing a problem is important, or if it is not their job, or if they believe that finding suitable ways to address the problem is impossible, they are probably not going to get involved. The Saving the World pattern language would likely have patterns such as the following within this category: Animating Spirit providing motivation, hope, and inspiration; Values Orientation recognizing that values must play a role in addressing these challenges; Community Appreciation, recognizing the value and diversity of communities; as well as Courage and Solidarity, singling out just two of the many important attitudes that people and organizations will need to do this work.

(3) Organizational Capital

Organizational capital refers to the features that enable work to proceed in an agreed-upon, orderly fashion. This does not mean that improvisation or initiative is forbidden, but the flip side, perennially reinventing the wheel, is not a virtue. The Saving the World pattern language would likely have patterns such as the following within this

category: patterns and pattern languages Life-Cycle and Methodologies; Metapatterns to integrate patterns and domains; Support for Loose Coordination between individuals and projects realizing that tight coordination between every group is not possible; Shared Common Good Domain Foci to help focus attention; Values-Sensitive Design describes how values can be interwoven into the work; and Tangible Product Cycle to ensure the regular output from the various efforts.

(4) Relational / Social Capital

Relational / social capital refers to the set of features that build on—and extend—the power of social relationships. The Saving the World pattern language would likely have patterns such as the following within this category: Diverse Users and Uses; Community Development; Community Animators, individuals who play vital roles in getting things going; and Thinking Community, working towards (and sharing) vital, useful knowledge.

(5) Financial, Material, and Other Resources

This category complements the previous ones. It is listed last but this is not to say that it is not important, but to assert that resources are needed in the service of the other four categories—not the reverse. This category includes the variety of resources that may be needed such as financial, material, and other resources, such as employees and volunteers, buildings, equipment or, even, time. The Saving the World pattern language would likely have patterns such as the following within this category: Resource Inventory which helps people understand and appreciate what they have; Resource Substitution which describes how one resource can sometimes be substituted for another; and as well as Resources about Resources, a resource for helping people obtain the resources they need.

5. A Pattern Universe: Conclusions

Some of the groundwork on the second aspect of the project could be done while the initial pattern language was being formulated. The hope is that we would be building the foundation for a useful collaborative ecosystem where patterns were central, and that it would serve the people well who were acting responsibly and earnestly for a future that works for all.

In addition to the pattern development, we have begun work on a manifesto or declaration that will publicly share our program and help build the necessary community. In no uncertain terms this manifesto will recount our anxiety over mounting global issues and declare our dedication to face them directly for as long as it should take. The manifesto will state our interest in the pattern language approach as well as the necessity to learn as we go along. It will also serve as an invitation to people who are interested in the global, humane stewardship that eschews violence and inequity. We see ongoing educational approaches, formal and informal, as necessary aspects of this, which we will actively design and help organize.

Utopian visions have the tendency not to live up to their lofty ambitions. That, of course, does not prevent people from coming up with new ones all the time. Perhaps the authors of those visions actually believe that their plans will take root and transform society—all of it—inexorably and quickly. Or if everybody would just listen to them! Needless to say, we're not of that frame of mind. Having utopian visions is not the same as offering utopian “solutions.” And we are not trying to bring utopia to light through our sole efforts but, instead, to engage and inspire and support our and others' collective efforts.

So, stepping away from the (impossible) idea of establishing utopia here on earth, some very significant, if not miraculous, outcomes include:

- expanded focus on solving real issues
- getting others on board, explicitly and tangibly
- developing viable processes (methodology) and useful content
- developing and helping a loosely coordinated broader collaborative community
- leaving useful tidbits for others in the search for the unreachable utopia

Imagine a large, growing, adaptive, responsive, effective, values-based community organized with a pattern language orientation that was focused on helping individuals and groups address the challenges of wicked problems!

We might even surprise ourselves through our efforts with outcomes that are quite dazzling and liberatory.

Please do not hesitate to contact the authors. We welcome your thoughts!

APPENDIX A: RELEVANT PATTERNS FROM LIBERATING VOICES

This appendix contains 17 patterns from the 136 patterns in the original Liberating Voices pattern language. As is often the case when using patterns for project design, the criteria for their selection and their categorization into highest or secondary relevance wasn't formulated at the onset. Thus, the patterns that any individual or group selects are likely to be different. Also, the ultimate use of the patterns will be determined over the course of the project by the people who are involved in it.

Highest Relevance

Back to the Roots, <https://publicsphereproject.org/content/back-roots>
Emergency Communications, <https://publicsphereproject.org/content/emergency-communication-systems>
Future Design, <https://publicsphereproject.org/content/future-design>
Thinking Communities, <https://publicsphereproject.org/content/thinking-communities>
Voices of the Unheard, <https://publicsphereproject.org/content/voices-unheard>

Secondary Relevance

Activist Road Trip, <https://publicsphereproject.org/content/activist-road-trip>
Citizen Journalism, <https://publicsphereproject.org/content/citizen-journalism>
Civic Capabilities, <https://publicsphereproject.org/content/civic-capabilities>
Civic Intelligence, <https://www.publicsphereproject.org/content/civic-intelligence-1>
The Commons, <https://publicsphereproject.org/content/commons>
Community Inquiry, <https://publicsphereproject.org/content/community-inquiry>
Earth's Vital Signs, <https://www.publicsphereproject.org/content/earths-vital-signs>
Experimental School, <https://publicsphereproject.org/content/experimental-school>
The Good Life, <https://publicsphereproject.org/content/good-life>
Matrifocal Orientation, <https://publicsphereproject.org/content/matrifocal-orientation>
Memory and Responsibility, <https://www.publicsphereproject.org/content/memory-and-responsibility>
The Power of Story, <https://publicsphereproject.org/content/power-story>

APPENDIX B: SOME RELEVANT PATTERN LANGUAGES

Since the original pattern language book was published, hundreds, if not thousands, of pattern languages have been developed. We assume that many (or most?) have not been published or made widely available. The list of pattern languages here is just a sampling of what's out there and have been selected to show the range and the specific connection of patterns and pattern languages that should be useful for *saving the world!*

Collaboration Patterns (Iba 2014)
Commoning (Bollier and Helfrich 2015)
Collaborative Activities for Biodiversity Conservation (Kamada et al., 2018)
Cross-Border Leadership (Miura et al., 2016)
Fearless Change (Manns and Rising 2005)
GroupWorks (Group Pattern Language Project 2011)
Liberating Voices (Schuler 2008)
Living well with Dementia (Iba et al, 2016)
Refugee Integration (Neis and PUARL, 2026)
Surviving Earthquakes (Furukawazono et al. 2013)
Wise Democracy (Co-intelligence Institute 2026)

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