Pattern Languages
An Approach to Holistic Knowledge Representation

douglas schuler
douglas@publicsphereproject.org
http://www.publicsphereproject.org/patterns/lv
Confession...

I am obsessed with ideas and actions that help build civic intelligence.

Civic intelligence is the ability to collaboratively address social and environmental challenges effectively and equitably.
Today’s **Problems** can’t be solved simply.

We might not be smart enough soon enough...
What kind of world are we living in?

• Our global problems are vast and potentially catastrophic. (And our national, regional, and local ones aren’t exactly trivial.)
• Complex problems require complex solutions.
• We need ways to re-integrate knowledge silos and help coordinate actions directly and indirectly.
• We will need everybody!
I’ll make a case for pattern languages...

Consider that when they’re done well...

• They describe current phenomena and provide vision for the future.
• They integrate knowledge from diverse sources.
• They link theory and practice.
• They help coordinate the thoughts and actions of groups of people; and at the same time,
• They don’t under-prescribe or over-prescribe.
This book launched the pattern language concept.

The focus was design and construction of human habitations.

Its orientation is towards “bottom up” action.
(Now there are many more....)
What is a Pattern?

Alexander uses “pattern” in a specific sense.

• A pattern is a form of seed. It contains a reflection of current work and thinking, as well as the vision of a future in which the seeds all have been successfully cultivated.

• Each pattern is presented using five main parts: title, problem, context, discussion, and solution. Additionally they often have an introductory graphic that conveys the idea and a diagram that summarizes the pattern.
Using Patterns

"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."

(From A Pattern Language)
What is a *Pattern Language*?

Alexander uses “pattern language” in a specific sense

- A pattern language is an ordered collection of patterns.
- The patterns in a pattern language combine into a holistic set of patterns that are intended to be used together.
- In the original book Alexander stated that a pattern language could be developed in any domain.
- Now pattern languages are often a collective work.
A Pattern Language provides 253 “patterns” for “bottom up” architecture from, pattern 1 INDEPENDENT REGIONS, the most general, to pattern 253, the most specific, THINGS FROM YOUR LIFE.
A staircase is not just a way of getting from one floor to another. The stair is itself a space, a volume, a part of the building; and unless this space is made to live, it will be a dead spot, and work to disconnect the building and to tear its processes apart.

Therefore:

Place the main stair in a key position, central and visible. Treat the whole staircase as a room (or if it is outside, as a courtyard). Arrange it so that the stair and the room are one, with the stair coming down around one or two walls of the room. Flare out the bottom of the stair with open windows or balustrades and with wide-steps so that the people coming down the stair become part of the action in the room while they are on the stair, and so that people below will naturally use the stair for seats.

From *A Pattern Language*, Alexander et al, 1977
People need an identifiable spatial unit to belong to.

Therefore:

Help people to define the neighborhoods they live in, not more than 300 yards across, with no more than 400 or 500 inhabitants. In existing cities, encourage local groups to organize themselves to form such neighborhoods. Give the neighborhoods some degree of autonomy as far as taxes and land controls are concerned. Keep major roads outside these neighborhoods.

From *A Pattern Language*, Alexander et al, 1977
8 MOSAIC OF SUBCULTURES

The homogeneous and undifferentiated character of modern cities kills all variety of life styles and arrests the growth of individual character.

Therefore:

Do everything possible to enrich the cultures and subcultures of the city, by breaking the city, as far as possible, into a vast mosaic of small and different subcultures, each with its own spatial territory, and each with the power to create its own distinct life style. Make sure that the subcultures are small enough, so that each person has access to the full variety of life styles in the subcultures near his own.

From A Pattern Language, Alexander et al, 1977
Liberating Voices provides 136 “patterns” for “bottom up” information and communication from, pattern 1, the most general, CIVIC INTELLIGENCE to pattern 136, (not necessarily) the most specific, RETREAT AND REFLECTION
A participatory project started in 2001 to catalog issues and actions that promote positive social change.

The online “pool” contains over 400 “patterns.”

The book contains 136 patterns (also online) contributed by 85 authors.
La humanidad ha alterado socialmente y materialmente al mundo en una forma increíble a través de los años. Esto ha creado un abismo entre nuestra situación actual y nuestras "raíces", las cuales están más cerca de la naturaleza y más cerca a la fuente y el sustento de nuestras vidas. Volver a las raíces no pretende ser un viaje nostálgico: descubriendo, cultivando y construyendo nuestro "centro radical" puede ser una fuente de preparaciones creativas para el futuro.

Written by Douglas Schuler
Indicadores

Cuando la gente de la comunidad identifica los indicadores que son importantes para ellos, tienden más a llevar un significado personal y funcional que cuando los científicos sociales identifican construcciones que son significativas únicamente para una comunidad académica. El verdadero trabajo comienza una vez que los indicadores han sido identificados. Los indicadores deben ser medidos, discutidos, y publicados. En última instancia, pueden ser utilizados para desarrollar políticas y proyectos que se ocupen de ellos.

Written by Douglas Schuler
Mapas Significativos

Para mejorar el mundo, tenemos que entender la situación, poner en relieve los factores importantes, y ayudar a otros a entender los problemas. Los mapas significativos pueden proporcionar un enfoque claro de la información pertinente. Los grupos necesitan utilizar sus recursos cuidadosamente para lograr el máximo impacto. También quieren comunicar sus inquietudes y animar a otros a apoyar su trabajo.

Written by Andy Dearden and Scot Fletcher
By acting as though the future will never arrive and things will never change, we are creating the future with the seeds that we are sowing today. The purpose of Future Design is to get people actively engaged envisioning better futures and making plans on how to get there. Through "rehearsing for the future" we hope to create possible scenarios that could become the positive "self-fulfilling prophecies" of tomorrow.

Written by Douglas Schuler
Patterns aren’t recipes

They don’t provide precise instructions...

Patterns are more like seeds that have different results when planted in different soil. Different people, in different situations, will use the patterns differently. They are really tools for thought.

The use of a pattern is intended to change the flow of what would have happened in its absence.
Patterns

provide ideas that...

• Already exist but aren’t necessarily recognized
• Perturb “business as usual”
• Aren’t obvious (Fincher)
• Lead to other things; they are “generative”
• Promote action as well as thought; They are “actionable”
The Good Life

People who hope for a better world feel the need for a shared vision of The Good Life. The environmental crises of the planet require a broad vision of a good life that harmonizes human aspirations and natural limits. A framework for the modern good life should be based on some form of humanism with room for a spiritual dimension that does not seek domination.

Meaningful Maps

To improve the world, we must understand the situation, highlight the important factors, and help others to understand the issues. Meaningful Maps can provide a clear focus for relevant information. Groups need to use their resources carefully to achieve the maximum impact. They also want to communicate their concerns and encourage others to support their work.

Open Action and Research Network

As problems become more and more intractable, more—and more diverse—people must work together. While diversity is a necessity and can be a source of strength, it introduces problems that can worsen if we don’t address them effectively. We must acknowledge the importance of Open Action and Research Networks while resolving the issues and building on the incipient wisdom.

Citizen Science

The role of science will become more critical in the years ahead, as health care, energy, resources, and the global environment become more problematic. Science needs greater participation from people, and people need a greater voice in science. Citizens, policymakers, and professional scientists all benefit by integrating scientific knowledge and local knowledge to bear on the problems that they experience.
What’s Next?

• We have developed a set of cards that we have started to use in workshops with community groups and social change organizations. (Also a simple online game — offline at the moment)

• We are currently transforming our web site to help support use and further development of the patterns.

• We are thinking about how to use the patterns in online deliberative systems.

• We are still adding patterns — and you can too!
Inteligencia Cívica

Inteligencia cívica describe que tan bien grupos de personas persiguen fines cívicos a través de medios cívicos. Inteligencia Cívica hace la pregunta crítica: Es la sociedad suficientemente inteligente para afrontar los desafíos que se le presentan? La inteligencia cívica requiere aprendizaje y enseñanza. También requiere meta-cognición – el pensar y realmente mejorar como pensamos y trabajamos juntos.

La Buena Vida

La gente que tiene la esperanza de un mundo mejor siente la necesidad de una visión compartida de la buena vida. La crisis ambiental del planeta requiere una visión más amplia de una buena vida que armonic las aspiraciones humanas y los límites naturales. Un marco para la buena vida moderna debe estar basado en algún tipo de humanismo con espacio para una dimensión espiritual que no busque la dominación.

Los Recursos Comunales

El genoma humano, las semillas, y las aguas subterráneas deben pertenecer a todo el mundo – No a las corporaciones. La biblioteca pública, el jardín comunal, el mercado campesino, y los fideicomisos son recursos comunales familiares y altamente efectivos. El sector emergente de los recursos comunales provee beneficios que las corporaciones no pueden proveer como ecosistemas saludables, seguridad económica, comunidades más fuertes y una cultura participativa.

Atenuación de la dominación Social

La dominación social está en el corazón de muchas de las empresas más vergonzosas de la humanidad. Se sostiene a través de la ideología, economía, política, educación, los medios de comunicación, percepción social e interacciones, la cultura y la tecnología. El Entender cómo se mantiene la dominación social puede proporcionar pistas importantes de cómo puede ser contrarrestada.
Methodology

- Pattern Language Development
  - See “Hints” (next slide)
- Develop “Framing” at the same time
  - Motivation & Purpose
  - Vision
  - Audience
  - Documentation, how to use, adding new patterns
- Form
  - Online and/or book and/or cards and/or game ....
- Use
  - Anticipate while developing; preview and co-design with potential users
HINTS for easy group assembly

- Gain basic understanding of patterns and pattern languages
- Agree on fields of patterns (for example, *title*, *opening* or *closing* graphics, *context*, *problem*, *solution*, *links*, *evidence*, *diagram*, *references*, etc.)
- Brainstorm individually and collectively about pattern names & ideas
- Share pattern names and ideas before moving forward with writing
- Agree on tasks and process timeline
- Agree on style, word limits, etc.
- Agree on roles (rights & responsibilities) and who will assume them. Decision-making and reviewing very important.
Liberating Voices to “Subclass”

These are patterns which can be readily adopted by other pattern languages

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Conclusions & Observations

• Pattern languages are well suited in terms of structure and intent for group knowledge construction.

• And participants learn by doing!

• Methodologies for use is still challenging.
Thanks for listening!

Questions or comments?
Please feel free to contact me any time.

douglas schuler
douglas@publicsphereproject.org
http://www.publicsphereproject.org/patterns/lv
Each pattern contains a confrontation with a problem; and describes features of the world that need changing.

The solution summarizes the ideas in the pattern that people are using to address the problem; the application of the pattern is intended to help us overcome the problem and bring us closer to a more humane existence.
Each pattern is intended to promote positive social intervention from a grassroots perspective.

Each pattern contains five main parts: title, problem, context, discussion, and solution.

A pattern language is an ordered collection of patterns. (The concepts are from Christopher Alexander et al, A Pattern Language, 1977)