

Fine Points of Pattern Writing

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Patterns Are About Teaching

- Not a research report
- Not to impress people with your smarts



Writer and Readers

- The writer is a teacher trying his or her best to convey the information in the patterns
- The author is in a position of more knowledge
- The readers are students
- It is assumed they need to be instructed about the area
- Figure out how much the readers will know and make that somehow evident in the titles of things or in the early discussion



Forces

- Forces teach about the area—what is difficult, what is the landscape like, what is easy
- The “problem” should be a set of circumstances someone could notice, usually while building something
- For every problem statement, ask yourself “how do you know that’s the problem?”
- The solution should fall out of the discussion of the forces and other teaching about the situation
- The solution should seem familiar to an expert but even the expert should feel enlightened by the discussion
- Talk about what to build and not how to build it—in this sense you are reifying the solution, making it easier to explain



It's About People

- Technology is easy and there are lots of genres for writing about it
- Patterns are an especially applicable genre when the human element is in the foreground and you want to talk about how people live their lives in the presence of technology



The Textual Electronic Communication Pattern Language

- Richard P. Gabriel, Ron Goldman, & Joshua Kerievsky
- A pattern language that for constructing communications systems
- Tells *what* to build at the user level based on the human needs for the system rather than how to construct the internal implementation
- Usually pattern writers stand facing technology and like to talk about it, implying (only) the needs of people through the observable facets of the technology



Rhythm of Conversation***

... you are laying out the design principles for a textual electronic communication system and desire to make the most congenial system you can for the type of use it will be put to ...

* * *

Different conversations have different rhythms. Sometimes the exchange is slow, with time to think between each reply and a desire to carefully consider each letter and its appropriate reply. Other times the exchange is fast and furious, with ideas sent as fast as possible, perhaps for the purpose of getting quick action, deciding a relatively unimportant matter, or to have a fun, fast exchange.



It is easy to accidentally discourage the natural rhythm of the conversation by offering or emphasizing inappropriate behavior and interfaces. For example, in a communications system that assists fast-paced conversations, it is useful to have aggressive auto-completion, spell-checking and spelling correction, a palette of emoticons or other special abbreviations—in a fast exchange, these can both speed up and enhance the quality of the message. In a slow-paced conversation, the writer is interested in reflection and in creating a good-looking, well written letter. In such a situation, having indicators popping up displaying mistakes or auto-completing are distracting and therefore discourage the natural rhythm and frustrate the writer. In fact, in such cases tools for checking things like spelling should wait in the wings until the writer is ready for them rather than intruding on the process.

Another example is the use of pen and paper. In such communications, the physicality of interaction forms part of the rhythm of conversation—the act of moving a pen on a scratchy piece of paper reinforces the intimate and delicate human-to-human nature of the conversation. The physical motion requires more time and encourages thought before writing, as does the difficulty and ugliness of trying to erase ink. In this case, the deliberate difficulty of using the mechanism of interaction encourages a welcomed rhythm.



Some conversations are specialized enough—such as calendaring—that non-local conversations about when and where to meet are best mediated through specialized programs that handle such conversations.

Therefore,

Different software should be available that is suitable to the style of conversation. Do not force a slow-paced letter writer to suffer from auto-completion or spelling correction while he or she is typing; Doing so distracts the writer from thinking about the message. Provide fast-paced messagers facilities to communicate quickly with as few impediments as possible; in fact, try to provide shortcuts to try to assist the writer in getting the message across rapidly. Also be aware of the intrusiveness of the message delivery system, so that people awaiting a quick turnaround are sought by the system while those waiting for a slowly written letter are not interrupted when they might be working or resting.

* * *



Physical mail requires the recipient to visit a mailbox or post office. Physical mail is inherently a slow-paced medium, and so the slow pace is part of the experience of the exchange. When an email program detects or is informed that the user is writing a deliberate letter, it may make sense for the email program to suspend intrusive attention-grabbing behavior, while in the opposite case where a quick exchange is underway, notifications and the like would be welcome and should be enabled, either automatically or easily.



APL4TEC

- We brainstormed pattern names and perhaps a 1-sentence description in a 1-day session
- Then we each started writing each pattern at the rate of one a day
- We were going to then combine the 3 versions of each one somehow
- We viewed this drafting process as a way for us to really understand the space
- We all had had a lot of experiences with such systems and were trying to pull out the best features but we were not afraid of speculating and inventing based on experience



Single Patterns Are Like Fragments

]

]we live

]

the opposite

]

daring

]

]

]

-If Not, Winter, Fragments of Sappho by Anne Carson



Pattern Languages

- A pattern language tells you how to build a coherent thing by telling you what to build at important steps along the way
- A pattern makes sense only within a pattern language—otherwise it is merely a strange fragment like the one from Sappho
- For a pattern language, ask what you are building so that you can focus on what the parts are and how the needs and desires of people fit in



Patterns

- What is the heart of the pattern?
- Where does the piece (the pattern) start?
- Where does the pattern end?
- How does each section, sentence, and word aim toward teaching what is important in and about the pattern/pattern language?
- How does each pattern contribute toward it being used differently each time?
- How much of the pattern does someone need to read to be drawn in?
- How much practicing of pattern writing do you do?



Pattern Form

There seems a tendency in the software patterns community when writing a pattern in Alexandrian format to put the problem statement before the “therefore” and the solution after it. I prefer the way Alexander includes a full discussion of the problem and possible solutions in the body and reserves the section after “therefore” for the instructions on how to solve the problem that summarizes the earlier discussion. (For example see the pattern “Alcoves” where the use of alcoves is fully discussed in the body of the pattern.)



Pattern Anxiety

- Don't worry about whether something is a pattern—work on presenting your material to your intended audience in a way they will understand (using the pattern form) and allow your piece to be what it is
- Don't worry about whether your patterns have known uses—if you are presenting good material, it doesn't matter where it came from



Triggers

- A pattern is a trigger—does it act like one?
- When you read it does it feel part of you?



The Writing

- Does it create a vivid and continuous dream?

In a vivid piece of writing the mental images that the writer presents are clear and unambiguous; what the writer writes about should appear in our 'mental dream' exactly as if we ourselves were thinking the thoughts he is describing. When the writing produces this clear image we can absorb what he writes with little effort.

In a continuous piece of writing there are no gaps or jumps from one topic to another. The image that is produced by the writing does not skip around. In non-fiction, especially in technical writing, the problems and questions we have about the subject are answered as soon as we formulate them in our minds. That is, as we read a piece of technical writing we are constantly imagining the details of the subject matter. Sometimes our image is confused because we are not sure how some newly presented detail fits in, or we are uncertain of the best consistent interpretation. At this point the writer is obligated to jump in and settle the matter or provide a clarification. This way we do not have to stop and think, or go back to re-read a passage or some passages.



The Writing

- Did you learn something writing the pattern and pattern language—if you didn't learn anything, why would you expect a reader to?
- For each pattern is there something strange in it?
 - Something you didn't expect and no reader could?
 - I look for something strange, or strangely personal
- Has some trigger or other scaffolding stayed in place and now is a detriment?
- I look for the personality of the writer in the words—his or her fingerprints



Quality

Where can we find quality? It's the stuff on the page.

- Narrative structure works toward carrying the work into the deepest parts of the reader.
- The paragraph and sentence structure can be conducive to reading and can carry their own interest through strength and fostering the ability to read right along without stumbling or re-reading: A,B. B, C. C,D.
- Graphics and artwork help determine how effective and beautiful they are. The use of figures and illustrations to illuminate a piece, how well the illustrations are done, the quality of the graphics, the appropriateness of colors, the use of dimensional and multivariate data, shading, resolution, and integrating words, images, and numbers can be done well or poorly.
- The writing style overall can be good and serve the intention of the piece. Word choices, stylistic choices, images, use of metaphor and other figures, humor, informality, formality, story-telling even in technical pieces, and use of writing craft elements in whatever genre can add to and serve the piece well.
- Typography can be done particularly well.



What I Look For in Any Technical Writing

- Does the title reflect the content well enough, does it attract the intended readers and repel those who cannot understand it
- Do the abstract, introduction, literature review, and conclusions do their jobs, do these parts help funnel and filter readers, are all the relevant previous results noted
- Are the arguments and evidence laid out logically and in proper order, are the arguments and explanations clear and believable, is there enough detail in the evidence and experiments to convince
- Is the mathematics clear, are theorems proved correctly and with the level of detail customary for papers like this
- Is it clear and true that there is sufficient novelty or new results, are they clearly pointed out
- Are the figures, illustrations, graphs, diagrams, schematics, and other non-textual information designed and executed properly
- Is the writing clear, vivid, appropriate to the audience, is the narrative structure clear and effective, is the writing too ambiguous



What I Look For in Any Technical Writing

- Is the piece overall too shallow, too deeply embedded in details; if the piece is a specification for implementors, does it underspecify, overspecify, are historical precedents and lessons appropriately and clearly presented
- Is the use of statistics correct and appropriate, are any statistics, graphs, numbers, or images misleading; is it fun to read?



Of Mere Being

The palm at the end of the mind,
Beyond the last thought, rises
In the bronze decor.

A gold-feathered bird
Sings in the palm, without human meaning,
Without human feeling, a foreign song.

You know then that it is not the reason
That makes us happy or unhappy.
The bird sings. Its feathers shine.

The palm stands on the edge of space.
The wind moves slowly in the branches.
The bird's fire-fangled feathers dangle down.

-Wallace Stevens



Think About This

I read the finest poets, essayists, and fiction writers—many of them, in fact, are my close friends. I read patterns, pattern languages, and technical papers you have written—many of you, in fact, are my close friends.

When I read fine poetry, I have pieces of paper covered with words forming English text in my hands. When I read your patterns, I have pieces of paper covered with words forming English text in my hands.

Is it possible for me to *not* compare your writing with those of great writer?

Is writing your *hobby* or part of your *profession*?