Good Practice, Best Practice and Patterns of Practice

Unless I missed it entirely, the DWBP working document [ <http://www.w3.org/TR/2015/WD-dwbp-20150224/> ] just starts talking about best practices without considering what a “best practice” is, and how it relates to “good practice” or any other systematised pattern of practice such as a standard operating procedure or a pattern of practice.

In addition, the WD says “The best practices described below have been developed to encourage and enable the continued expansion of the Web as a medium for the exchange of data” which really goes counter to the idea that “best practices” are surfaced from an examination of the diverse habits and practices in a domain, working out against certain defined criteria what is the most effective, efficient and economical way of getting something done, of going from A to B.

So, Oxford Dictionaries defined “best practice” as:

“*Commercial or professional procedures that are accepted or* [*prescribed*](http://www.oxforddictionaries.com/definition/english/prescribe#prescribe__2) *as being correct or most effective*”[[1]](#endnote-1) and ITIL v3 gives “*Proven Activities or Processes that have been successfully used by multiple Organisations. ITIL is an example of Best Practice.”* [[2]](#endnote-2)

There are various approaches to defining “good practice”, but it is really a taxonomic nightmare. However, FAO use the following definition:

*“A good practice is not only a practice that is good, but a practice that has been proven to work well and produce good results, and is therefore recommended as a model. It is a successful experience, which has been tested and validated, in the broad sense, which has been repeated and deserves to be shared so that a greater number of people can adopt it*.”[[3]](#endnote-3)

The point about design patterns is that they are abstract. As Christopher Alexander said, “*Each pattern describes a problem that 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 this solution a million times over, without ever doing it the same way twice.”* [[4]](#endnote-4)

So, some practices, such as using UTF-8 encoding, is going to be done in the same way each time anybody does it. It is a ‘good practice’. Other ways of solving problems can be implemented in different ways but in the abstract they share a similarity of approach, and these are design patterns. E.g. Best Practice 11: Use unique identifiers.

Design pattern documentation is highly structured, but there is no consensus on a single structure (i.e. there is a design pattern here, not a standard operating procedure style of ‘best practice). One commonly used template in software engineering is

|  |  |
| --- | --- |
| **Term** | **Description** |
| Pattern Name | Describes the essence of the pattern in a short, but expressive, name |
| Intent | Describes what the pattern does |
| Also Known As | List any synonyms for the pattern |
| Motivation | Provides an example of a problem and how the pattern solves that problem |
| Applicability | Lists the situations where the pattern is applicable |
| Structure | Set of diagrams of the classes and objects that depict the pattern |
| Participants | Describes the classes and objects that participate in the design pattern and their responsibilities |
| Collaborations | Describes how the participants collaborate to carry out their responsibilities |
| Consequences | Describes the forces that exist with the pattern and the benefits, trade-offs, and the variable that is isolated by the pattern |

[[5]](#endnote-5)

Similarly, the template for pedagogical patterns[[6]](#endnote-6) has the following structure:

* **Name** – single word or short phrase that refers to the pattern. This allows for rapid association and retrieval.
* **Problem** – definition of a problem, including its intent or a desired outcome, and symptoms that would indicate that this problem exists.
* **Context** – preconditions which must exist in order for that problem to occur, this is often a situation. When forces conflict, the resolutions of those conflicts is often implied by the context.
* **Forces** – description of forces or constraints and how they interact, some of the forces may be contradictory, such as being thorough often conflicts with time or money constraints.
* **Solution** – instructions, possibly including variants, may encompass pictures, pictures, diagrams, prose, or other media
* **Examples** – sample applications and solutions, analogies, visual examples, and known uses can be especially helpful, help user understand the context
* **Resulting Context** – result after the pattern has been applied, including post-conditions and side effects. It might also include new problems that might result from solving the original problem.
* **Rationale** – the thought processes that would go into selecting this pattern, The rationale includes an explanation of why this pattern works, how forces and constraints are resolved to construct a desired outcome.
* **Related Patterns** – differences and relationships with other patterns, possibly predecessor, antecedents, or alternatives that solve similar problems.

Note that any patterns doesn’t need to have all 9 elements.

In a similar vein, Bardach uses an 8-step pattern to narrating a public policy [[7]](#endnote-7)

1. Define the Problem
2. Assemble Some Evidence
3. Construct the Alternatives
4. Select the Criteria
5. Project the Outcomes
6. Confront the Trade-offs
7. Decide
8. Tell Your Story

The task[[8]](#endnote-8) is to determine what additional fields might be helpful in describing DWBPs. The template currently used is:[[9]](#endnote-9)

**Best Practice Template**

**Short description** of the BP, including the relevant RFC2119 keyword(s)

**Why**

This section answers two crucial questions:

* Why this is unique to publishing or re-using data on the Web?
* How does this encourages publication or re-use of data on the Web?

A full text description of the problem addressed by the best practice may also be provided. It can be any length but is likely to be no more than a few sentences.

**Intended Outcome**

What it should be possible to do when a data publisher follows the best practice.

**Possible Approach to Implementation**

A description of a possible implementation strategy is provided. This represents the best advice available at the time of writing but specific circumstances and future developments may mean that alternative implementation methods are more appropriate to achieve the intended outcome.

**How to Test**

Information on how to test the BP has been met. This might or might not be machine testable.

**Evidence**

Information about the relevance of the BP. It is described by one or more relevant requirements as documented in the [Data on the Web Best Practices Use Cases & Requirements document](http://www.w3.org/TR/dwbp-ucr/)

The current BP template has strong similarities to the other design patterns presented in the areas that it covers, but there are 3 areas that are missing and from which it could benefit if they were included. These are:

* Forces or trade-offs. If we adopt this BP what are the potential conflicts, compromises or costs that one would face.
* Resulting Context or Projected Outcome. This is slightly different to the current BP’s “Intended Outcome” since it is looking less at what the benefits and opportunities are once the BP is implemented and more at the potential constraints and the future decisions that will have to be made in the new landscape
* Participants or Related Patterns. The current BP approach would benefit from an optional section covering both BPs that articulate directly with the BP being described and BPs that are related in other ways.

In addition to these suggestions that come from a comparison with the approaches of others to design patterns and good practice, I think that we could usefully classify the best practices in a way that would help managers decide and allocate resources. So, some best practices might involve a one-off decision (licensing, vocabulary, etc) whereas others are more continuing activities that require alteration of processes (preserve peoples’ right to privacy, gather feedback from data consumers, etc)

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1. <http://www.oxforddictionaries.com/definition/english/best-practice> [↑](#endnote-ref-1)
2. <http://www.best-management-practice.com/gempdf/itil_glossary_v3_1_24.pdf> [↑](#endnote-ref-2)
3. <http://www.fao.org/fileadmin/user_upload/goodpractices/docs/GoodPractices_Template-EN-March2014.docx> [↑](#endnote-ref-3)
4. A Pattern Language [↑](#endnote-ref-4)
5. <http://www.developer.com/design/article.php/1474561/What-Are-Design-Patterns-and-Do-I-Need-Them.htm> [↑](#endnote-ref-5)
6. <http://ifets.ieee.org/discussions/discuss_june2004.html> [↑](#endnote-ref-6)
7. <https://en.wikipedia.org/wiki/Eightfold_Path_(policy_analysis)> [↑](#endnote-ref-7)
8. <http://www.w3.org/2013/dwbp/track/actions/184> [↑](#endnote-ref-8)
9. <http://www.w3.org/TR/2015/WD-dwbp-20150224/#bp-template> [↑](#endnote-ref-9)