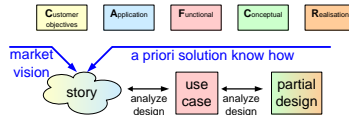


Story Telling

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Abstract

A story is an easily accessible story or narrative to make an application live. A good story is highly specific and articulated entirely in the problem domain: the native world of the users. An important function of a story is to enable specific (*quantified, relevant, explicit*) discussions.

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1 Introduction

The CAFCR views and the quality needles are generic means to capture an architecture. The generic nature is powerful, however explorations in more depth are needed to understand the problem. Story telling followed by specific analysis and design work is a complementary method to do in depth exploration of parts of the specification and design. Starting a new product definition often derails in long discussions about generic specification and design issues. Due to lack of reality check these discussions can be very risky, and way too academic.

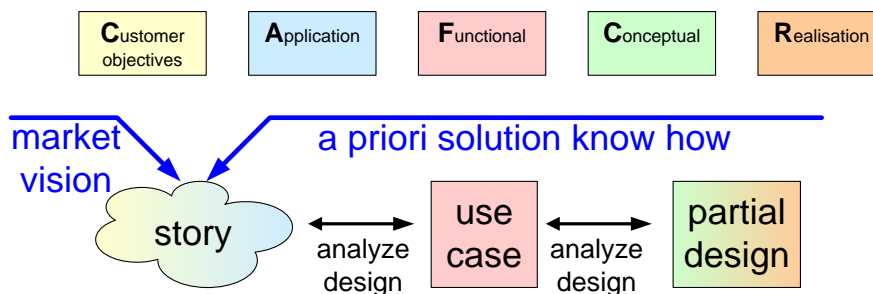


Figure 1: From story to design

The method provided here, based on story telling, is a powerful means to get the product definition quickly in a concrete factual discussion. The method is especially good in improving the communication between the different stakeholders. This communication is tuned to the stakeholders involved in the different CAFCR views: the *story* and *use case* can be exchanged in ways that are understandable for both marketing-oriented people as well as for designers.

Figure 1 positions the story in the customer objectives view and application view. A good story combines a clear market vision with a priori realization know how. The story itself must be expressed entirely in customer terms, no solution jargon is allowed. The story is used to analyze specific parts of the specification: a use case. The use case is then used to explore specific parts of the design.

Section 2 describes how to create a story. The use of the story is explained in Section 3. The criteria for a good story are discussed in Section 4.

2 How to Create a Story?

As shown in Figure 2 a story is a short single page story, preferably illustrated with sketches of the most relevant elements of the story, for instance the look and feel of the system being used. Other media such as cartoons, video or demonstrations

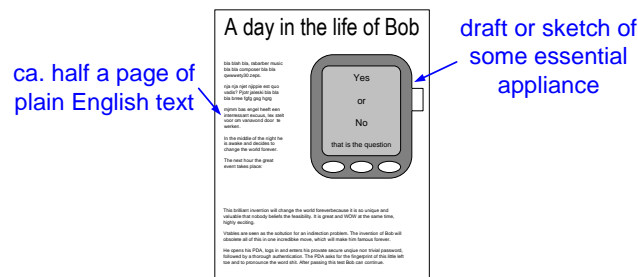


Figure 2: Example story layout

using mockups can be used also. The *duration* or the *size* of the “story” must be limited to enable focus on the essentials.

Every story has a *purpose*, something the design team wants to learn or explore. The purpose of the story is often in the conceptual and realization views. The *scope* of the story must be chosen carefully. A wide scope is good to understand a wide context, but leaves many details unexplored. A useful approach is to use *recursively refined* stories: an overall story setting the context and a few other stories zooming in on aspects of the overall story.

The story can be written from several *stakeholder viewpoints*. The viewpoints should be carefully chosen. Note that the story is also an important means of communication with customers, marketing managers and other domain experts. Some of the stakeholder viewpoints are especially useful in this communication.

3 How to Use a Story?

The story itself must be very accessible for all stakeholders. The story must be attractive and appealing to facilitate communication and discussion between those stakeholders. The story is also used as input for a more systematic analysis of the product specification in the functional view. All functions, performance figures and quality attributes are extracted from the story. The analysis results are used to explore the design options.

Normally several iterations will take place between story, case and design exploration. During the first iteration many questions will be raised in the case analysis and design, which are caused by the story being insufficiently specific. This needs to be addressed by making the story more explicit. Care should be taken that the story stays in the Customers views and that the story is not extended too much. The story should be sharpened, in other words made more explicit, to answer the questions.

After a few iterations a clear integral overview and understanding emerges for this very specific story. This insight is used as a starting point to create a more

complete specification and design.

4 Criteria

Figure 3 shows the criteria for a good story. It is recommended to assess a story against this checklist and either improve the story such that it meets all the criteria or reject the story. Fulfillment of these criteria helps to obtain a useful story. The set of five criteria is a necessary but not sufficient set of criteria. The value of a story can only be measured in retrospect by determining the contribution of the story to the specification and design process.

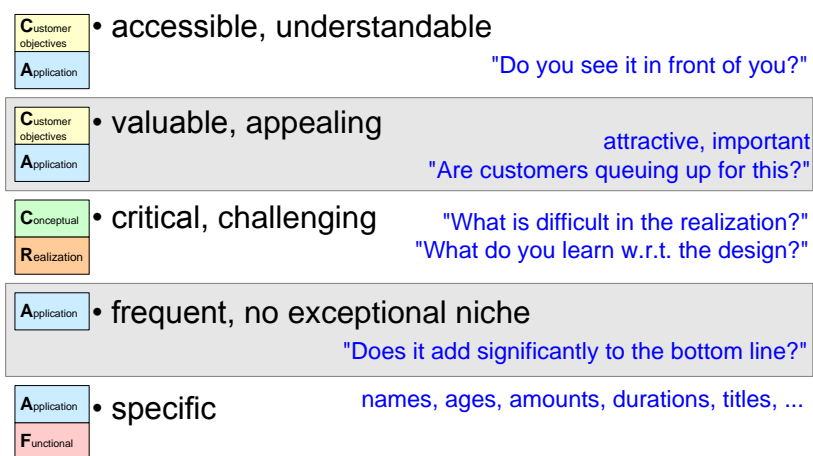


Figure 3: Criteria for a good story

Subsections 4.1 to 4.5 describe every criterion in more detail.

4.1 Accessible, Understandable

The main function of a story is to make the opportunity or problem communicable with all the stakeholders. This means that the story must be accessible and understandable for all stakeholders. The description or presentation should be such that all stakeholders can *live through, experience* or *imagine* the story. A “good” story is not a sheet of paper, it is a living story.

4.2 Valuable, Appealing

The opportunity or problem (idea, product, function, or feature) must be significant for the target customers. This means that it should be important for them, or valuable; it should be appealing and attractive.

Most stories fail on this criterium. Some so-so opportunity (whistle and bell-type) is used, where nobody gets really enthusiastic. If this is the case more creativity is required to change the story to a useful level of importance.

4.3 Critical, Challenging

The purpose of the story is to learn, define, and analyze new products or features. If the implementation of a story is trivial, nothing will be learned. If all other criteria are met and no product exists yet, then just do it, because it is clearly a quick win!

If the implementation is challenging, then the story is a good vehicle to study the trade-offs and choices to be made.

4.4 Frequent, no Exceptional Niche

Especially in the early exploration it is important to focus on the main line, the *typical* case. Later in the system design more specialized cases will be needed to analyze for instance more exceptional worst case situations.

A *typical* case is characterized by being frequent, it should not be an exceptional niche.

4.5 Specific

The value of a story is the specificity. Most system descriptions are very generic and therefore very powerful, but at the same time very non-specific. A good story provides focus on a single story, one occasion only. In other words, the thread of the story should be very specific.

A common pitfall for story writers is to show all possibilities in one story. For example one paragraph that describes all the potential goodies. Simply leave out such a paragraph, it only degrades the focus and value of the story.

A good story is in **all** aspects as specific as possible, which means that:

- persons playing a role in the story preferably have a name, age, and other relevant attributes
- the time and location are specific (if relevant)
- the content is specific (for instance is listening for **2 hours** to songs of **the Beatles**)

This kind of specific data is often needed to assess the other criteria, to bring it more alive, and in further analysis. If during the use of the story numbers have to be “invented”, it is recommended to improve the story by adding specific facts to the story.

5 Summary

Story telling is a means to become specific and concrete in the early product creation phases. Five criteria are described to create and to assess stories: accessibility, value, challenge, frequency and specificity.

Unfortunately, the research in this area took place many years after the case study in Part III. Some comparable effort in the case will be discussed in Chapter ???. In Part IV some more evidence from a different context will be provided for the story telling submethod.

6 Acknowledgements

Within the IST-SWA research group lots of work has been done on scenario and story based architecting, amongst others by Christian Huiban and Henk Obbink. Rik Willems helped me to sharpen the *specificity* criterium.

References

- [1] Gerrit Muller. The system architecture homepage. <http://www.gaudisite.nl/index.html>, 1999.

History

Version: 1.4, date: April 7, 2004 changed by: Gerrit Muller

- shortened the Valuable criterion
- changed status to finished

Version: 1.3, date: March 17, 2004 changed by: Gerrit Muller

- added a statement that the criterions are necessary but not sufficient
- changed status to finished

Version: 1.2, date: February 27, 2004 changed by: Gerrit Muller

- added section "Summary"

Version: 1.1, date: November 21, 2003 changed by: Gerrit Muller

- small language improvements
- changed status to "concept"
- removed figure with point of attention

Version: 1.0, date: October 28, 2003 changed by: Gerrit Muller

- many small language improvements
- added CAFCR annotations to the criterions figure

Version: 0.3, date: October 17, 2003 changed by: Gerrit Muller

- many small language improvements

Version: 0.2, date: October 11, 2003 changed by: Gerrit Muller

- Removed description above CAFCR in Figure 1.

Version: 0.1, date: September 29, 2003 changed by: Gerrit Muller

- Refactored Introduction in 3 sections.

Version: 0, date: July 29, 2003 changed by: Gerrit Muller

- Created as copy of "Story How To"