Agile Business Analysis

**A Digital Assistant for Students at FHNW**

Work report

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Olten, October 19, 2019

Declaration of authenticity

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Place, date Beutler Marc

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# Introduction

This work report was realized during the MSc in Business Information Systems at University of Applied Sciences Northwestern Switzerland (FHNW) as assignment in the course Agile Business Analysis. During this course the task was given to handle a Business Analysis project, in an agile team of 4 people, using agile methods. As a basis of knowledge, the BABOK guide and its Agile Extension are used. The goal of this document is to provide the reader with some insights how the projects is realized, describing the methods we use (Hinkelmann, 2019).

The topic that has been selected by our group is given by the FHNW and contains the development of a digital assistant for students in the form of a chatbot. More information was not given at the beginning and therefore the scope was not clearly defined. So, it lied within the responsibility of our team to further define and plan the development of the chatbot.

The definition of a chatbot can be given as follows:

*“A computer program designed to simulate conversation with human users, especially over the Internet.”* (Oxford University Press (OUP), 2019)

Having a look at the Stacey-Matrix it can be clearly described why this topic is particularly well suited to be conducted using agile methods:

|  |  |
| --- | --- |
| Figure 1: Stacey Matrix (Ballarin Latre, 2019) | The Stacey-Matrix brings the following three dimensions in correlation:   * Requirements * Technology * People   The scale used goes from “Close to Certainty/Agreement”, which means that almost all information that is required is already given, to “Far from Certainty/Agreement” which is the exact opposite, almost no information is given to start with. |

Depending on the clarity of information and knowledge given for a project in relation to the dimensions mentioned above, it then can be classified in one of the following areas regarding complexity to perform it (see Figure 2):

Ein Bild, das Screenshot enthält.

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Figure 2: Complexity Areas Stacey Matrix (Maretzke, 2019)

Regarding our topic “A Digital Assistant for Students at FHNW” we made to following considerations regarding the dimensions from the Stacey-Matrix:

|  |  |
| --- | --- |
| Requirements: | As we didn’t have any idea regarding possible requirements at the beginning and the possibilities what can be achieved with a chatbot are endless, we decided to place our project towards “Far from Agreement”. |
| Technology: | Some ideas regarding technology already emerged at the beginning, so there has been a better understanding regarding possible technologies than the clarity of requirements. So, we placed our project quite in the middle of the scale “Far from Certainty” and “Close to Certainty”. |
| People: | Our team is built with members of totally different backgrounds. Therefore, also our knowledge regarding the topic of a chatbot was completely different. So, it was not yet clear at the beginning how far this team composition will get regarding the realization of a chatbot. |

Taking everything into account we were able to place our project very clearly in the “Complex” complexity area of the Stacey-Matrix. Which means that an agile approach suitable for conducting this project, also due to given timeframes, the possibility of changing requirements during the project and a major impact of the stakeholders on the success of the chatbot as a potential deliverable of the project.

# Problem / Current state

* + Stakeholder analysis
  + Merge conflict?
  + Problem analysis

# Vision / Future state

* + Goals / Vision
  + Possible outcome

# Methodology

* + Define way of work (Governance):
    - Roles
    - Methods
      * Scrum
      * Impact Mapping?
      * Story Mapping?
    - Sprint 1-3
  + Stakeholder Engagement

# Work reports

The following chapters will give an overview of the three Sprints that have been conducted. It will give insights about the different stages that our team has gone, which methods have been used and the results of each Sprint will be discussed.

## Sprint 1

Sprint 1 served us to get an initial idea about the requirements of the different stakeholders, to get a first impression of the tools we use (especially Trello and GitHub) and to create our first dialogue with the chatbot to improve our ability to estimate further development in the subsequent Sprints.

As a first task we set up our Product Backlog in Trello with all Tasks that came into our minds and to have a clear overview we structured the Trello board by introduction a new list element “Milestones / Explanation” (see Table 1 and Figure 3):

Table 1: Descriptions of Milestones/Explanation elements in Trello

|  |  |
| --- | --- |
| Initial Pitch: | All cards that define tasks concerning the initial pitch. |
| Sprint 1: | All cards that define a task shall be done for Sprint 1. |
| Sprint 2: | All cards that define a task shall be done for Sprint 2. |
| Sprint 3: | All cards that define a task shall be done for Sprint 3. |
| Final Pitch: | All cards that define tasks concerning the final pitch. |
| Deliverable: | All cards that represent some sort of deliverable/artifact. |
| Meetings: | All cards that include a specifically planned meeting to be conducted. |

All cards created have been marked with at least one of the elements listed in Table 1. Furthermore, the roles of our team have been defined as follows due to the fact that Anton and Marc already had some experience with agile methods and Scrum:

* Anton: Product Owner
* Marc: Scrum Master
* Anton, Lorenzo, Luca, Marc: Development Team

The initial Product Backlog looked as follows (see Figure 3):

A screenshot of a cell phone

Description automatically generated

Figure 3: Initial Product Backlog in Trello

All tasks concerning the initial pitch already have been done before the first Sprint Planning and are therefore already marked as “Done”.

* + Product Backlog
  + Sprint Planning / Estimation -> Sprint Backlog, Define Deliverable
  + Sprint Goal
  + Sprint Review: Analyse Deliverable
  + Sprint Retrospective

## Sprint 2

* + Consider feedback from previous Retrospective
  + Product Backlog
  + Sprint Planning / Estimation -> Sprint Backlog, Define Deliverable
  + Sprint Goal
  + Sprint Review: Analyse Deliverable
  + Sprint Retrospective

## Sprint 3

* + Consider feedback from previous Retrospective
  + Product Backlog
  + Sprint Planning / Estimation -> Sprint Backlog, Define Deliverable
  + Sprint Goal
  + Sprint Review: Analyse Deliverable
  + Sprint Retrospective

# Final Product presentation

# Recap:

* + What went well/bad?
  + Things to change for the next time?
  + Possible future work

# List of references

# List of pictures and tables