P8 Project

Tempo Player - Tunes for running

P8 Project

Group SW802F15

Software

Department of Computer Science
Aalborg University

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Contents

1 Introduction

Lean manufacturing is a well regarded strategy in production and warehouse organisations

Alexander: Source?

, and Poppendieck and Poppendieck (2003) adapted it to use in the software industry in their book "Lean Software Development: An Agile Toolkit".

Lean Software Development is a strategy focusing on:

- Eliminating waste
- Amplifying learning
- Late decisions
- Fast deliveries
- Team empowerment
- Including quality
- Big picture

These seven principles seek to improve the development process by increasing efficiency and quality.

...

1.1 Purpose

Given our limited knowledge we will conduct a systematic literature review. This review has the purpose of creating an overview detailed enough to determine where Lean Software Development stands at this point in time and to shed light on where further research is needed.

1.2 Tools

For this review we use the Literature Manager Zotero.

Protocol 2

This chapter will describe how we intend to perform the Systematic Literature Review. This Systematic Literature Review is based on the guide by Okoli and Schabram (2010), and it consists of 8 steps. The steps are:

1. Select search terms which will cover the literature proposed in the purpose.
2. Select which databases, in which, these search terms should be queried.
3. Develop screening parameters, which will determine if an article lives up to the requirements of this Systematic Literature Review.
4. ...

Dan: Update if we end up doing it as an SLR.

2.1 Search Terms

Given the previously stated purpose, this search needs to be broad enough to give an overview of Lean Software Development, without including articles of standard Lean (i.e. Lean Manufacturing) or other development frameworks and methodologies.

To achieve a broad range of results, we have selected the search terms: Lean, Software, Software Development, Software Engineering, Systems Development, Information Systems, Information Systems Development, and Information Systems Engineering.

These search terms are combined to the following queries:

- Lean Software
- Lean Software Development
- Lean Software Engineering
- Lean Systems Development
- Lean Information Systems
- Lean Information Systems Development
- Lean Information Systems Engineering

2.2 Databases

For this search to give an unbiased overview of Lean Software Development, the three best/largest literature databases was selected.

ACM Digital Library, was selected because ... .

IEEE Xplore Digital Library, was selected because ... .

Web of Science, was selected because ... .

Google Scholar was not selected due to the ineffective and non-customisable search function.

2.2.1 Query adaptation

Each of these databases handles queries differently. In Table 2.1 is a example of how each database is queried:

Database	Query Example
ACM Digital Library	Lean "Information Systems Development"
IEEE Xplore Digital Library	(Lean (Information Systems Development))
Web of Science	Lean "Information Systems Development"

Table 2.1: Exaple of queries for each selected database.

Alexander: Is this the correct way to query ACM?

Alexander: Is this the correct way to query Web of Science?

2.2.2 Restrictions

To ensure a more precise search, each database have had some restriction imposed upon them.

For the search of the ACM Digital Library database, the search is restricted to Title and Abstracts. This is done to prevent results including the word "lean" in the text, meaning thin and not the development methodology. However, this can exclude results which mentions Lean in comparison to other strategies without it being an integral part of the article.

For the search of the IEEE Xplore Digital Library database, the search is restricted to metadata only. Metadata consists of title, abstract, ... ? ... The repercussions of this is similar to the restrictions of the ACM Digital Library database search.

For the search of the Web of Science database, the search is restricted to the research areas "Computer Science" and "Engineering". ... something about these areas was the only on the list which made sense, but there could be more, hence excluding good results ...

2.3 Screening

2.3.1 Practical screening - Inclusion

2.3.2 Quality Appraisal - Exclusion

2.4 Data Extraction - Review

Search Results 3

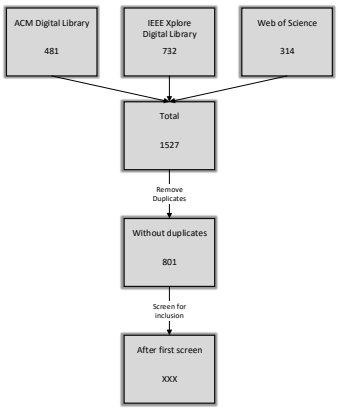

Figure 3.1: Figure of article count after each step.

The search was performed from the 4. September 2015 to the 10. September 2015.

The result of the search can be seen in Figure 3.1, which shows how many articles remained after each step.

4 Data Extraction

Conclusion 5

Bibliography

Judy Edworthy and Hannah Waring. The effects of music tempo and loudness level on treadmill exercise. *Ergonomics*, 49(15):1597–1610, 2006. doi: 10.1080/00140130600899104. URL http://dx.doi.org/10.1080/00140130600899104. PMID: 17090506.

Chitu Okoli and Kira Schabram. A guide to conducting a systematic literature review of information systems research. *Available at SSRN 1954824*, 2010.

Mary Poppendieck and Tom Poppendieck. *Lean Software Development: An Agile Toolkit*. Addison-Wesley Longman Publishing Co., Inc., Boston, MA, USA, 2003. ISBN 0321150783.

Examples & ToDo A

Alexander: Example of comment/ToDo made by Alexander

Dan: Example of comment/ToDo made by Dan

John: Example of comment/ToDo made by John

```
1 public class HelloWorld {
2
3     public static void main(String[] args) {
4         System.out.println("Hello, World");
5     }
6
7 }
```

Listing A.1: Caption of code snippet

This is how you refer to a source written by Edworthy and Waring (2006).

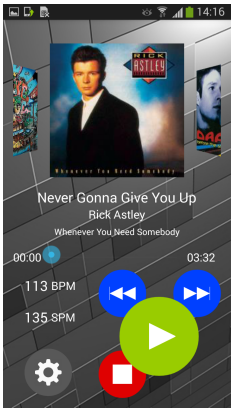

Figure A.1: A screenshot showing Tempo Player's main screen.

List of Todos

1, **Alexander:** Source?

3, **Dan:** Update if we end up doing it as an SLR.

4, **Alexander:** Is this the correct way to query ACM?

4, **Alexander:** Is this the correct way to query Web of Science?

13, **Alexander:** Example of comment/ToDo made by Alexander

13, **Dan:** Example of comment/ToDo made by Dan

13, **John:** Example of comment/ToDo made by John