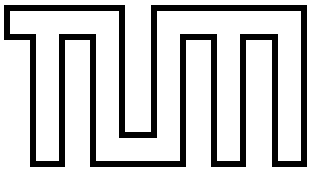

FAKULTÄT FÜR INFORMATIK

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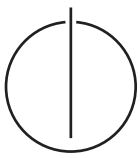
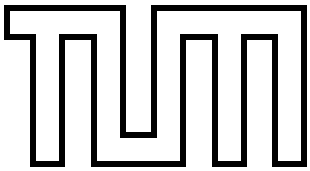
Bachelorarbeit in Informatik

Myriad – a mailmerge tool for massive parallel, yet individual email conversations

Ludwig Schubert





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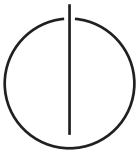
Myriad – a mailmerge tool for massive parallel, yet individual email conversations

Myriad – ein Serienbrief Email-Tool für hochgradig parallele, jedoch individualisierte Emailkonversationen

Author:	Ludwig Schubert
Supervisor:	Prof. Dr. Johann Schlichter
Advisor:	Dr. Wolfgang Wörndl
Date:	September 30, 2013



Ich versichere, dass ich diese Bachelorarbeit selbständig verfasst und nur die angegebenen Quellen und Hilfsmittel verwendet habe.

München, den 30. September 2013 Ludwig Schubert

Abstract

This thesis introduces the myriad system for email mass communication.

Despite it's age, Email has remained the prevalent form of electronic communication, it's usage being wildly different from how it was imagined. The tools to handle it, however, are still stuck in their original UI metaphors.

Myriad aims at producing personalized communication on a comparable level to manually composed messages, while reducing user effort. A cross-over of mailmerge and customer support/helpdesk software, it enables managing big volumes of bidirectional email-based communication. It is based on a self-developed framework for separating information extraction, decision- making, and personalization steps in communication.

The myriad system consists of a server component that handles interfacing with email servers, a core logic system and a web frontend for users.

It can be tested at `http://myriad.ludwigschubert.de`.

Keywords

Email, Workflow, Helpdesk, Mailmerge, Crowdsourcing, Personalized Communication, Assisted Templating, Generated Documents, Web-Application

Acknowledgements

This thesis is based on research conducted from October 2012 through April 2013 together with Christian Ikas, Barış Öztop and Nicolas Kokkalis under the guidance of *Prof. Michael S. Bernstein* and *Prof. Scott R. Klemmer* during a stay at Stanford University's Human Computer Interaction Department.

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Stanford
University

Elitenetzwerk
Bayern

Contents

Main Matter

1. Introduction

This is the introduction.

1.1. Outline

This chapter will give an overview and arguments for the relevance of new Email tools, as well the goals pursued by this thesis. Additionally, the structure of the work is explained.

In **chapter 2**, **Technical Backgrounds**, relevant technical background information is provided. The decision to build a web app is motivated. Standard-compliant email systems are explained and relevant standards are introduced. Lastly, an introduction to workflow systems and historic examples is given.

In **chapter 3**, **Comparison with similar systems**, two major categories of software – mailmerge systems and customer relationship management systems – are introduced, which overlap in functionality with Myriad.

In **chapter 4**, **Concept**, the architecture of the proposed system is motivated and its development process is highlighted.

In **chapter 5**, **Implementation**, is concerned with technical details of how Myriad was implemented. The collaborative development process is described, as are actual system component and their functionality.

In **chapter 6**, **Evaluation**, Myriad's initial goals will be reiterated and contrasted with real world observed usage.

In **chapter 7**, **Conclusion**, the relevance of this system and the proposed framework is discussed; future work is outlined and possible directions proposed.

The conclusion is followed by a **Bibliography** of cited works and a **List of Figures**.

The **Appendix** contains selected source code, blabla, and a **Colophon**.

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Bibliography

[1] Leslie Lamport. *LaTeX : A Documentation Preparation System User's Guide and Reference Manual*. Addison-Wesley Professional, 1994.

List of Figures

Appendix

A. Colophon

This thesis is set in LaTeX[1]. The template used is based on the official TUM Computer Science template. The sources are hosted publicly on GitHub, while the actual PDF file is build by the continuous integration server Travis.