

Accessmail - an accessible E-Mail Client



- Jonas Langenberg
- 23 years
- 7th semester BA Computer Science



Simon Demming, Jonas Langenberg,
Tuesday 8th July, 2014

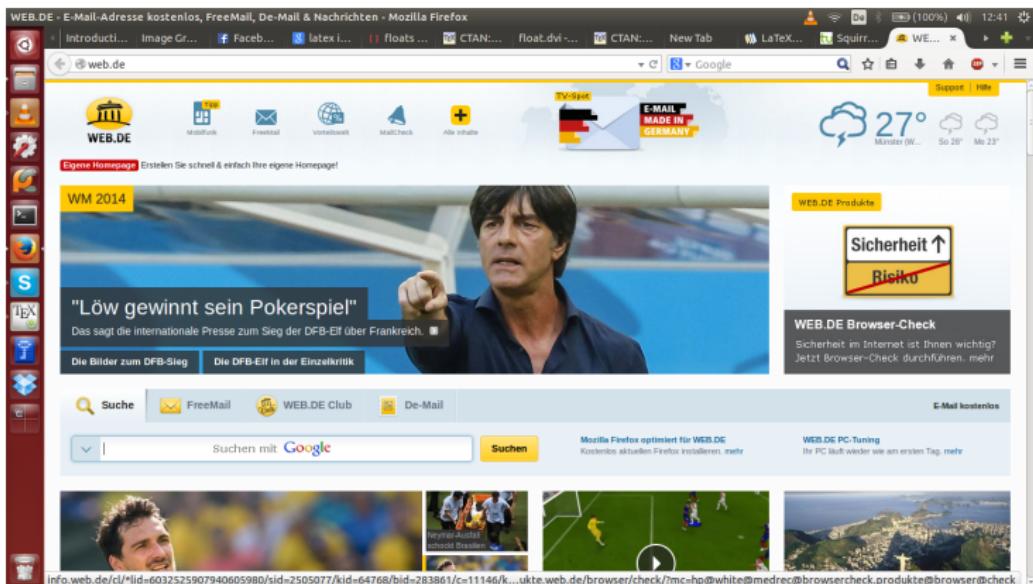
- Simon Demming
- 22 years
- 6th semester BA Computer Science

Introduction

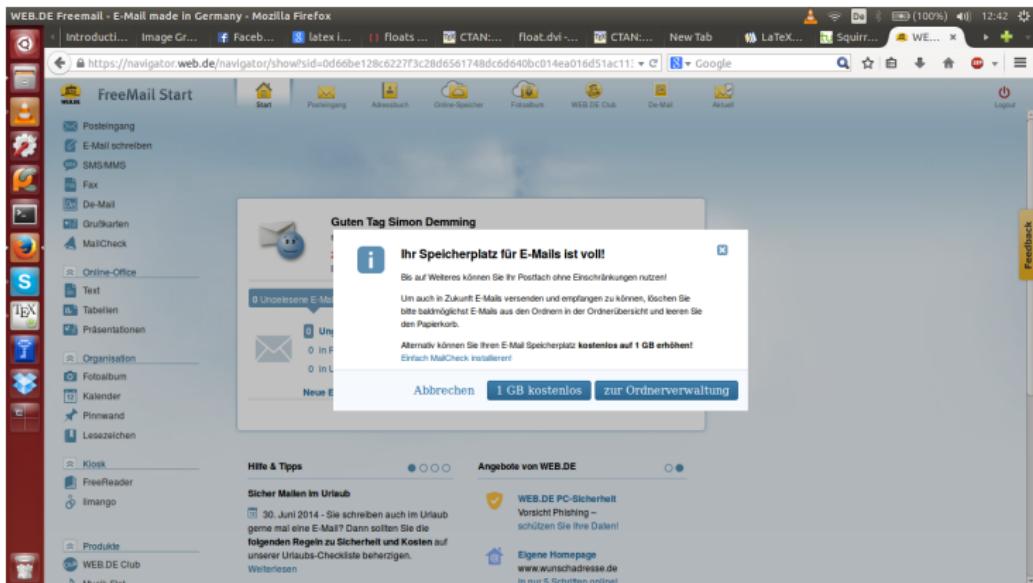
Email as a very important communication platform used for

- Private communication
- Labour affairs
- Finances
- Entertainment

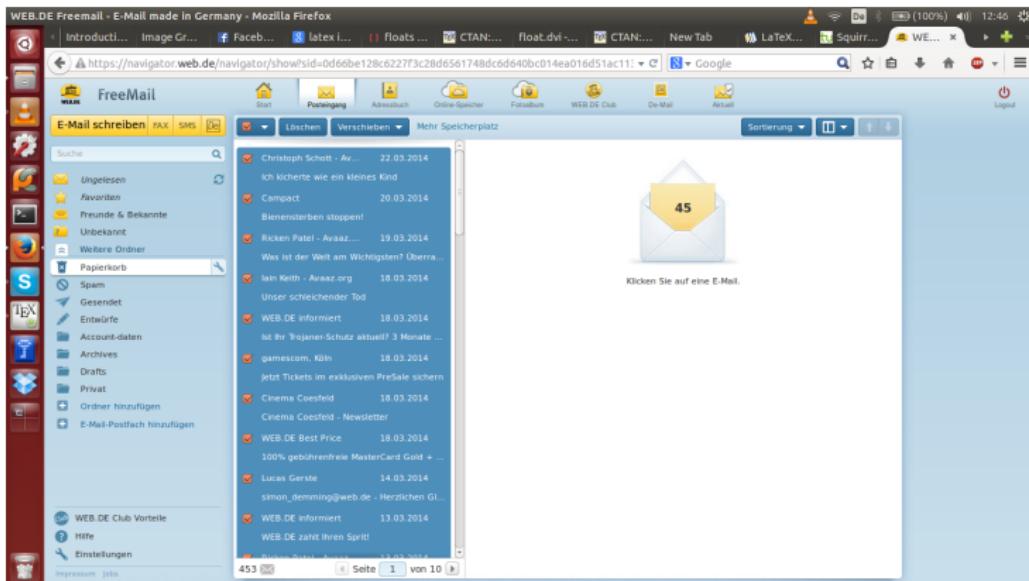
Typical German Provider



Typical Scam



Error prone web application



No standardization

The screenshot shows the Yahoo UK homepage as it would appear in Mozilla Firefox. The browser's interface is visible at the top, including the address bar with 'https://uk.yahoo.com', the search bar, and various tabs. The main content area features the classic yellow Yahoo logo and a large image of a wasp. Below this, there are several news headlines and video thumbnails. On the left, a sidebar lists links to Mail, News, Sport, Finance, Lifestyle, Celebrity, Weather, Answers, Video, Flickr, Mobile, and More. A 'Trending Now' section on the right lists current news items. At the bottom, there are links for All Stories, News, Sport, Entertainment, and Finance.

Email is not easy!

Web applications of email providers:

- Are overloaded in functionality
- Try to rip you off
- Are technically complex

Email is not easy!



Fig. : Rainer Sturm / pixelio.de

Our Approach

We cannot offer a new provider.
We cannot establish standards.
But we can design an own front end.
Design it to be universal.
And verify it with an User Centered Design approach.

Preparations

Requirement definition



Requirements

- Simple design
→ High usability

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- High contrast
 - Good for visually impaired persons

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 - High usability again
- Foreseeable behaviour
 - No confusion

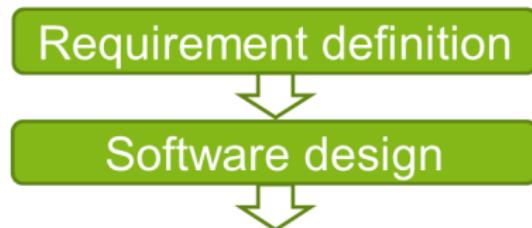
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Requirements

- Simple design
 - High usability
- High contrast
 - Good for visually impaired persons
- No distractions
 - High usability again
- Foreseeable behaviour
 - No confusion
- Confirmations
 - No accidental deletions
- Keyboard accessible
 - For persons dependant on the keyboard

Software Design



Model

- SQLite Database
- Alembic database migration
- SQLAlchemy

The Kivy Framework

- Cross platform
- Under MIT license
- GPU Accelerated



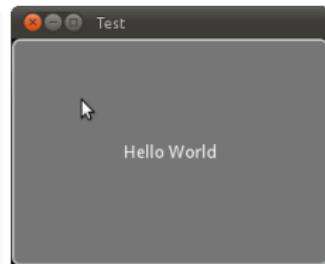
Fig. : <http://www.kivy.org/> - 02.July, 2014

Kivy example

```
from kivy.app import App
from kivy.uix.button import Button

class TestApp(App):
    def build(self):
        return Button(text='Hello World')

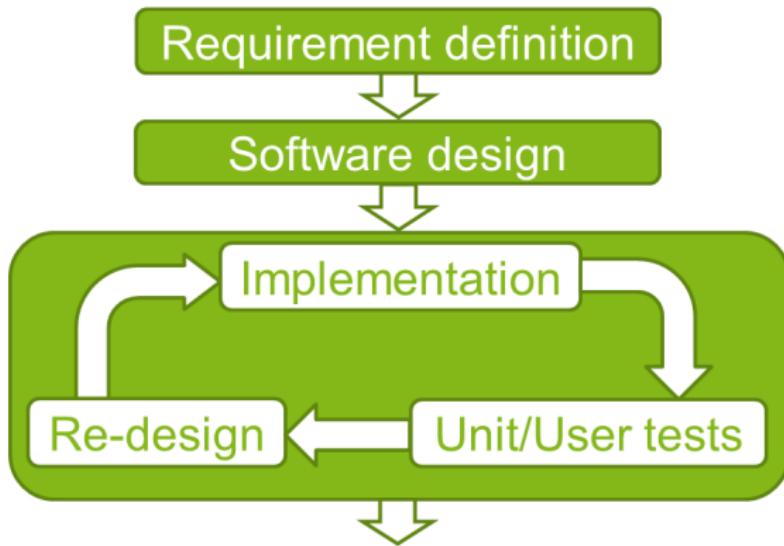
TestApp().run()
```



Controller

Connecting Model and View.
Get emails from server.
The usual logic.

Software Development



Implementation

Business as usual

Preparations

Aims:

- Test usability
- Get feedback on design
- (Finding bugs)

The script

Test the following functions:

- 1 Create email account
- 2 Address book
 - 1 Add contact
 - 2 Delete contact
 - 3 Send email to contact
- 3 Email
 - 1 Read email
 - 2 Write email
 - 3 Answer email
 - 4 Delete email

Test persons

- 5 persons
- Age: 20 to 22
- Only private contact with digital media
- Contact via Bethel

Testing

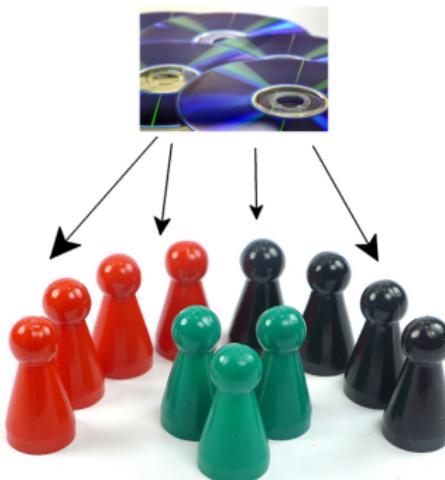


Fig. : www.clearlens-images.de/ / pixelio.de, U.Weinreich / pixelio.de

Test routine

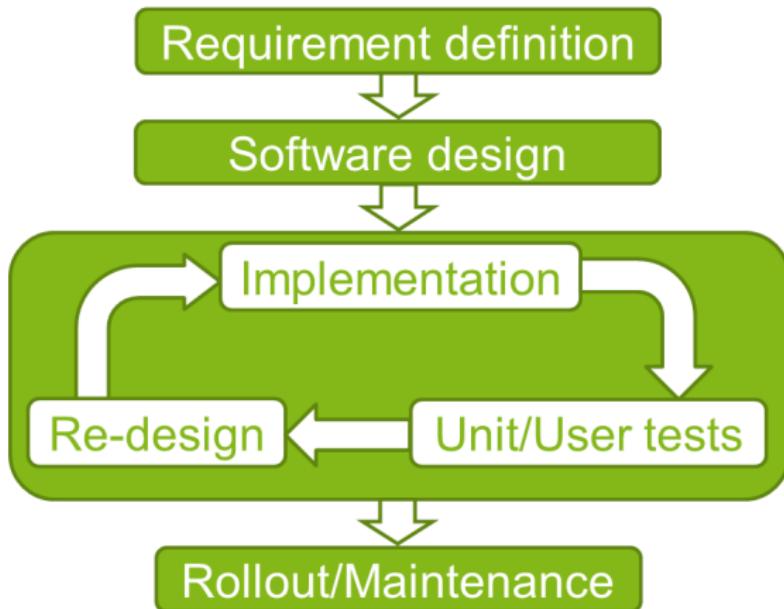
- Live tests with developers
- Open discussion
- Final and open feedback

Test results

Results of this routine:

- 1 Design**
 - Fancier colours
 - Smaller symbols
- 2 Behaviour**
 - Buttons not fully intuitive
- 3 Demanded Features**
 - Photos for contacts
 - Outbox
- 4 Technical level**
 - Email input not reset

Software Design



Let us have a look at the software!

Conclusions

Successful	Planned	Testing results
Simple design High contrast No distractions Foreseeable behaviour	Keyboard support More provider Attachments	Contact photos Updated design Introduction to email

We are open to questions now

