How to build a repository relevant for your institution, allowing the researchers to do research rather than administration

Jessica Lindholm
Chalmers University of Technology, Sweden
How to build a repository relevant for your institutional culture, not just the research side, but rather than administrative.

Jessica Lindholm
Chalmers University of Technology, Sweden

OR THE STORY OF WHY WE CHOSE TO DEVELOP A CRS IN-HOUSE!
• WHY DEVELOP A CRIS FROM SCRATCH?
• HOW WE DID IT?
• EVALUATING OTHER SYSTEMS
• AGILE METHODS
• MAIN MOTIVATIONS AND DRIVING FORCES
• NEXT STEPS
Assignment

Create a research information system (projects first)

for Chalmers University of Technology and possibly others as well
The team

UX expertise, librarians and systems developers
Roles in the dev team

Build the thing fast!

Product owner

Scrum master

Developers

Build the thing right!

Build the right thing!
Initial work (5 years ago)

• Possible choices: Pure, DIVA, SWECRIS etc.

• Talking to stakeholders:
  Communication officers, researchers, administrators, management
Input from stakeholders
Example method for user input
Librarians’ perspectives

- Publication oriented
- Integrations with ORCID
- A way to use altmetrics
- Interoperability with national data providers, discovery systems, OPACs
- Advanced search end-user interfaces
Researchers’ perspectives

• Visualize all our collaborations, e.g. with the industry
• Save our time
• Support scientometric analyses, show impact
• Integration with Google Scholar, ResearchGate etc.
Perspectives on administration

- Nice system! Who should add data? (Not me!)
- Free staff from admin stuff
- Management
- Scientists
- Is your data perfect? (or we won't use it)
- Scientometrics
Was there a system for these needs?
Was there a system for these needs?

Not at that time!
What did you do?
What did you do?
We started from scratch, doing one thing at a time.
How did it go?
How did it go?
I’ll tell you now!
Projects

• Visualising project information, cooperations and collaborations.
• Work flow

Import Chalmers contract database → Metadata enhancement The library → Data validation Project participants

Visible for staff.

* research.chalmers.se contains ~3 400 projects (2019-06-07)

Once validated visible on the web and via API:s etc.
Publications

- Visualising co-authoring and collaborations, loads of identifiers.
- Work flow

* research.chalmers.se contains ~70 000 publications (2019-06-07)
User needs
Data in and out

• Automatic import of publications from Scopus and Web of Science
• Prefilled forms for local authors (based on ISBN-orders)
• Automatic classification, based on abstract and publication channel, based on a text mining tool and data learning
• Projects come in from contractual database (Eko), initially also from Cordis and SweCris
• Person data from staff database and ORCID.org

• Data is exported to CMS, reference systems, the web (Google, Baidu, Yandex, etc), metrics database etc.
User needs

Free staff from admin stuff Management
Helping administrators

• Automatic classification of publications
• Automatic ISBN-ordering
• Tools for mergeing and administering duplicates
• Easy-to-use interfaces
• Less metadata fields than before
User reactions
BEFORE:

"I set aside a day and warn my colleagues before adding this years’ publications"

NOW:

Research is "the first administrative system, which is fun to use."

"This is a goldmine."

"A leap forward in usability"
Lessons learned

✓ Let the developers choose the technology
✓ Talk to the users about what they need and show them stuff
✓ Do not plan years ahead, solve what is needed and creates value for the users now
✓ Work in iterations, i.e. release small things often
✓ Prioritise - do one thing at a time
✓ Dare to fail
Lessons learned

✓ Prepare to adapt quickly to changes, since the world is moving fast
✓ Try your hypotheses with real users
✓ Requirements come to you as you develop
✓ Every busy researcher still seem to have 15 minutes for a meeting, when asked nicely.
Lessons learned

✓ Prepare to adapt quickly to changes, since the world is moving fast
✓ Try your hypotheses with real users
✓ Requirements come to you as you develop
✓ Every busy researcher still seem to have 15 minutes for a meeting, when asked nicely.
Open source software?
Yes, when we are done.