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

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How to build a CRIS system relevant for your institution — or the story of why we chose to develop a CRIS in-house!

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• Why develop a CRIS from scratch?
• How we did it?
• Evaluating other systems
• Agile methods
• Main motivations and driving forces
• Next steps

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euroCRIS 2018
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
SCRUM team

- Scrum master
- Developers
- Product owner

Build the thing fast!
Build the right thing!
Build the thing right!
Initial work

- Possible choices:
  - Pure, DIVA, SWECrIS, etc.

- Talking to stakeholders:
  - Communication officers, researchers, administrators, management.
Input from stakeholders
Example method for user input
Librarians’ perspective

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

- Visualize all our collaborations, e.g. with the industry
- Save our time
- Support scientometric analyses
- Integration with Google Scholar, ResearchGate etc.
Aministration perspectives

- Nice system! Who should add data? (Not me!)
- Free staff from admin stuff
- Management
- Researchers
- 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?

We started from scratch, doing one thing at a time.
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 ~3 000 projects (2018-06-08)

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 ~60 000 publications (2018-06-08)
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 merging and administering duplicates
- Easy-to-use interfaces
- Less metadata fields than before
User reactions
BECFORE:

"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.
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Open source software?
Yes, when we are done.