Transitioning from Current to Collaborative Research Information Systems

Experiences from the data driven research website project

Nick Veenstra, research information specialist / Dutch Pure Usergroup chair
The TU/e campus covers an area of 75 hectares

Ecosystem and characteristics

- Ultra-modern cleanroom
- 11 Knowledge institutes
- 91 Patents
- 3,379 Scientific publications
- Living labs
- 5 New start-ups and spin-offs
- 14 Large research labs
- 50 Smaller research facilities

International working environment

- 3,221 Total staff (fte)
- 1,854 Research staff (fte)
- 66% Dutch
- 34% International
- 63% Male
- 37% Female
- 142 Full professors
- 130 Part time professors
- 135 Associate professors
- 293 Assistant professors
- 1,534 PhD fellows

Rankings:

- CWTS Leiden Ranking 2018: TU/e no. 1 in industry cooperation
- Times Higher Education (THE) World University Ranking 2018: TU/e no. 167 out of >1000
- QS-Ranking 2018: TU/e no. 99 out of 900
From standalone CRIS to research information chain

• Implemented Pure as CRIS system in November 2015 (after using Metis for 30 years)
• Decentralized data entry/downloading by researchers + secretary staff, central validation
• Wide range of content:
  • 145,000 publications
  • 7000 activities*
  • 1200 prizes
  • 7300 awards, 8000 projects
  • 300 equipment (and labs)
  • 200 research areas/themes (impacts)
  • 1300 courses
• Traditionally publication based SOR, now fast growing activities and prize administration
• Website project 2017/2018: CRIS system became the center of the research information chain, facilitating a data driven research website from multiple sources

*: lectures, keynotes, memberships, editorships, outreach, consultancy etc.
TU/e research information chain

Enterprise Service Bus (ESB)

- HR
- Finance
- Student admin
- CMS
- CRIS
- Funder

Website
Portal
OpenAIRE, Narcis
Integrating research site and portal/repository
FAQ section on managing researcher website profile

FAQs

Page 1 out of 2 Pages

- What is Fingerprinting and am I able to edit the concepts?
  (395 views)
- How do I upload a profile picture to Pure for use in the portal (research.tue.nl) and on the TU/e research website (tue.nl/research)?
  (576 views)
- How are projects stored in Pure and how are they presented on the website?
  (1997 views)
- What profile information is/will be visible on the Portal and on my personal profile page of the TU/e website?
  (2279 views)
- Can I download my profile photo?
  (1398 views)
- How can I highlight my content in Pure?
  (1820 views)
- How do I create a link to my CV in the Portal?

Tags

- Affiliation
- Appointments
- conference contribution
- CV
- Document version
- Downtime
- embargos
- export
- metadata
- Open Access
- Organisations
- PhD Theses
- Projects
Results/feedback

• Researchers (re)discover the CRIS (research information chain) as PR tool
• Research website data driven, not a CMS database with 300+ editors
• Increased researcher feedback:
  • Adjusting to more generic pages proves difficult
  • More direct control over content (through CRIS, not emailing the editor)
  • Optimize workflow (funder feedback loop)

• Internal suppliers (HR, Finance) adjusting to a role as chain data supplier (organization structure, projects)
• Chain struggles with increasing number of external collaboration showcasing requests
Example cases

**JADS**
Data Science Center, joint venture of TU/e and TiU

**e/MTIC**
Eindhoven MedTech Innovation Center combines research from TU/e and several hospitals
Observations

- University vision for 2030: impact through collaboration
- CRIS (Pure) is organization based: data model has internal vs external concepts (staff, organizations, publications), limited portability
- We copy cloud data and make it ‘local’, requiring data curation by (research) staff that uploaded in in the first place. Attaching staff id’s result in:
- GDPR roadblocks in combining data from multiple universities
- IT policies:
  - No more local development, buy off the market
  - Security (no access/university network account fee to access local CRIS)
- License model based on number of researchers accessing the CRIS
- Researchers do not want to commit to local administration (gmail address, websites outside campus domain)
- Focus on ‘local administration’ works against showcasing collaborations
Connected metadata > Quality local metadata
CRIS System: software -> platform

- Traditionally CRIS = end station
  - Local source of truth
  - Linked to / functions as repository
- Now becomes source system, supplies other systems with information
- JADS joint venture:
  - Reporting: Elsevier Project ADA: cloud dashboards on performance (Scopus + SciVal + 3rd party)
  - For showcasing: VIVO portal?
- CRIS systems as platform supplying data to new applications such as (open source) portals, CMS plugins, federated search engines, etc.
- (Linked) open data endpoints on CRISses (GDPR approved by default)
CRIS community developer collaboration

- CRIS systems are opening up (Pure CRUD API, Plan S requirement of open API)
- Developer communities are emerging – CERIF standard as the common denominator?
- Dev community goals:
  - Build open source tools (curate/enrich/showcase) or even evolve into CRIS systems (VIVO)
  - Allow interoperability on different CRIS systems to support researchers moving to a new workplace
  - Connect data from several sources to showcase collaborations (by copying or preferably real-time through linked data)
  - Drive toward open access research metadata (abstract legal issues)
Thank You

Site: tue.nl/research
Portal: research.tue.nl
FAQ: purefaq.tue.nl
n.veenstra@tue.nl