A Multi-Criteria Analysis Approach to Repository Evaluation

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Multi-Criteria Analysis

- Multi-Criteria Analysis is a process for evaluating and weighing conflicting criteria
- Our process was adapted by Associate Dean for Technology, Heather Heckman, from a <u>UK government manual</u>
- Instead of using MCA software, we managed our progress in Excel

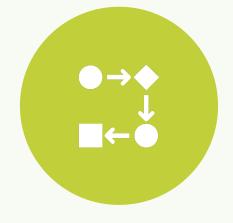
The question

Can we replace our current digital and institutional repository software with alternatives that meet or exceed our needs for approximately equal or lesser cost?

Getting started







PROCESS



GROUPS

Timeline

Sep. 15 - Mid Mid July – July 27 Aug. 17 - Aug. 28 **Early December** Nov. Nominate options for Primary group organizes Primary group evaluates All groups review final evaluation criteria and develops criteria individually, scores evaluation matrix meets several times a week to complete matrix Evaluation matrix is Primary group issues Groups and units Primary group meets to recommendations and shared for feedback and brainstorm criteria adjusted assign weights looks toward next steps July 17 – Aug. 14 Aug. 28 - Sep. 15 **Mid November Mid December**

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- 1. Identify applications to evaluate
- Brainstorm and select criteria
- 3. Evaluate applications on basis of criteria
- 4. Weight criteria
- 5. Discuss final scores & decision maker finalizes score
- 6. Finalize weighting of categories
- 7. Issue recommendation(s)

Process

Groups



- Primary group present at every meeting
- 2) Additional stakeholders present at brainstorming and could choose to attend additional meetings

The matrix



20 repository options were initially considered, but we narrowed this group to 7 for evaluation.



We started with almost 100 criteria, which was far too many to discuss.



Instead of evaluating individually, we grouped these into categories for discussion

Reviewing the MCA approach





What worked well?

What didn't?

Reviewing the MCA approach



What worked well?

- Thorough and rigorous examination of options
- Process exposed shortfalls with our current systems
- Communication was helpful
- Agreement on which criteria were important
- Weighting criteria

Reviewing the MCA approach



What didn't?

- Difficult to combine needs of IR and DL
- Difficult to compare open-source and proprietary solutions
- Fast and furious!
- Ratings sometimes felt artificial/arbitrary
- Documentation hard to find/understand



Takeaways



Open-source vs proprietary comparison is hard



Values and pragmatic concerns were sometimes at odds



Time consuming but worthwhile



Current system usage influenced the evaluation process



With this much information, visualizations help!



Communication is key



Rely on colleagues to fill in the gaps

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