Assignment A: Method description

Lecture 2
11 February 2019

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Dr. Sietse Overbeek

Universiteit Utrecht

Videoclip preparation (assignment G) (1/2)

- Use your own device (e.g., laptop with camera and mic)
- Test period for the Mediasite Desktop Recorder:
  - **11 February** to **25 February 2019**
  - Tech support is open till **28 March** for questions and can be reached at mediasite@uu.nl
  - Questions can also be asked in the lab sessions
- Production period (recording of your videoclip at home):
  - **25 March** to **28 March 2019** *with* tech support
  - **29 March to 3 April 2019** *without* availability of tech support
  - If recording fails for some reason, there is the possibility to record the videoclip in the Do-It-Yourself (DIY) Studio in the Utrecht University Library (UBU) on **27 March**
  - **4 April 2019** reviewing and grading of the videoclips

Videoclip preparation (assignment G) (2/2)

- Please use the following account for creating your videoclips in Mediasite:

Username: gaststudent_overbeek
Password: Kennisclips2019

Assignment E: Draft paper

- See point 5: ‘additional findings’
- 1st option: Search for an existing company that uses the technique or method you have selected
- 2nd option: Get in touch with the original authors of your technique or method
- 3rd option: Search for and analyze grey literature, video material, books, (company) white papers, theses, and dissertations that relate to your topic

Assignment week 7 & 8: Topic selection and description

- Who has not yet entered a topic and paper in the Google Sheet?

- Let a student assistant *in your group* approve your paper:
  - Kleopatra Chasioti: K.Chasioti@uu.nl
  - Melchior Keijdener: M.N.C.Keijdener@uu.nl
  - Philippe van der Voorn: P.L.F.M.vanderVoorn@uu.nl

- Rationale behind the theme selection:
  - Some themes are more fundamental; to complete our repository with descriptions of techniques and methods
  - Other themes are directly related to our research!

Assignment week 7 & 8: Topic selection and description

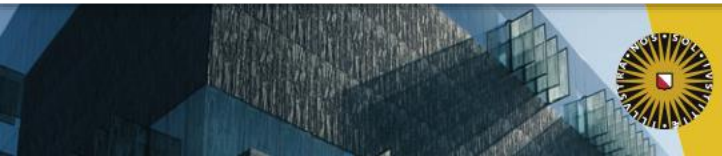
- Write the description of your selected technique or method
  - Introduction
  - Example
  - Related literature
  - References

Introduction

- *Introduction (0.5 – 1.5 page):*
  - description of the goal/purpose of the technique or method and the domain in which it is applied;
  - In case of a technique: a description of the procedure, the used notation and the development activity to be performed with the technique;
  - In case of a method: a global overview of the **main** activities, phases, deliverables, and roles;
  - the creators of the technique or method
    - academic or business background?
    - based on other techniques or methods?

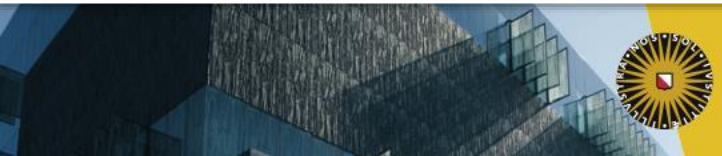
Example (1)

- *Example:*
  - description of an example in which you describe the different steps of the technique or method
    - make up your own example
  - provide also a detailed example of one of the deliverables of the technique or method
  - Do not forget to describe your example
    - do not simply put a diagram in the text



Example (2)

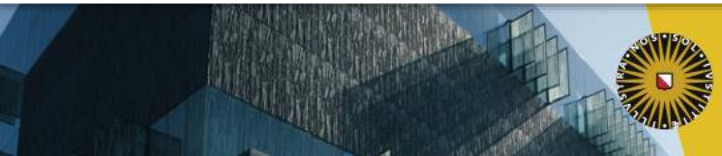
- Examples of deliverables:
  - A user story
  - A feature prioritization matrix
  - Part of a business case
  - A use case
  - A table with requirements with estimations on costs and values
  - Failure sequence diagram
  - Etc.



Example of a good example

In the following section, the procedure of process modeling using EPC is explained by applying the steps as described by Scheer et al. (2005, pp. 136–137) to a fictional process description. The steps as derived from Scheer et al. are enumerated below:

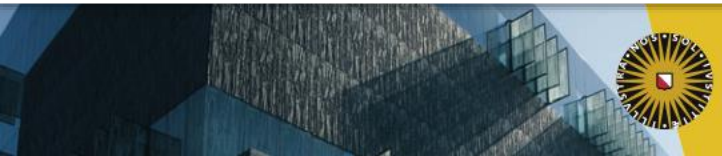
1. Define a unique title of the business process, to make clear which process is modeled.
2. Derive initial and final events from the process title.
3. Look for relevant verbs in the process description, translate them to a function flow, consisting of functions, logical connectors and process interfaces where applicable. The elements should be arranged in the order they are executed in. Where necessary, add logical connectors to split or join the execution.
4. For each transition between two functions, define one or more events in such way that the preceding function produces the event, and the event triggers the next event.
5. Verify the model for structural correctness, and perform validation with key stakeholders in the process.

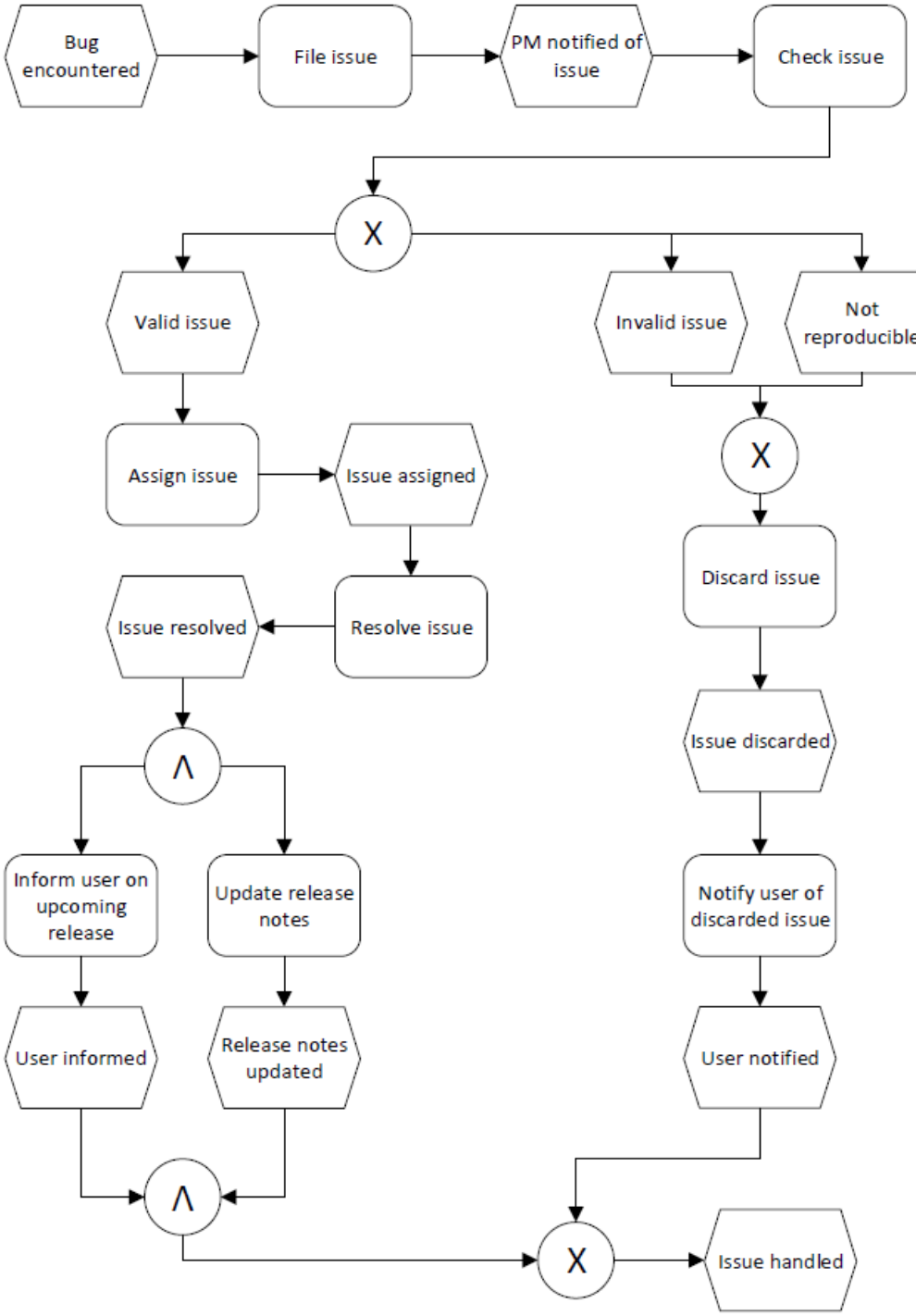


Next, consider a product software development company that has defined the following process for handling bug reports:

> *"All bugs that are encountered by both customers and internal stakeholders should be filed as an issue in our issue tracker. When a bug report is filed, the product manager (PM) checks whether the issue is reproducible and valid. If it is not reproducible or in fact not a bug, the PM discards the issue and notifies the user that the issue was discarded. Otherwise, the bug is assigned to the development team. As soon as the development team has resolved the issue, the PM updates the release notes of the upcoming product release and informs the user that the bug will be resolved in the next version."*

Applying the aforementioned steps to this description results in the EPC as depicted in Figure 2. The remainder of this section discusses how this model has been established.




Bug encountered
File issue
PM notified of issue
Check issue
X
Valid issue
Invalid issue
Not reproducible
Assign issue
Issue assigned
X
Discard issue
Issue resolved
Resolve issue
Issue discarded
Λ
Inform user on upcoming release
Update release notes
Notify user of discarded issue
User informed
Release notes updated
User notified
Λ
X
Issue handled

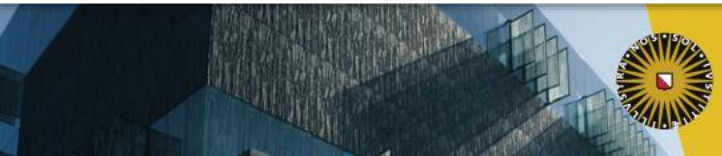
Applying the aforementioned steps to this description results in the EPC as depicted in Figure 2. The remainder of this section discusses how this model has been established.

From the description, it becomes clear that the process is concerned with the workflow to handle bugs. Therefore, the name of this process is defined as "Bug Handling Workflow."

The process appears to be triggered when a user or developer encounters a bug, so the initial event of the process is "Bug encountered". Furthermore, the process ends after an issue is handled, so this process has one final event named "Issue handled".

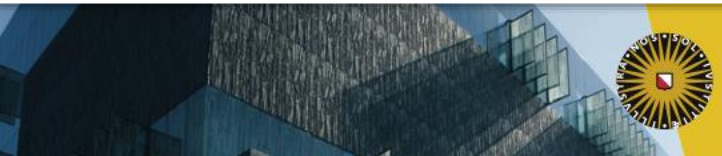
With the initial and final events in place, the process description is scanned for relevant verbs which are translated to functions. From the example, the following functions are derived: "File issue", "Check issue", "Discard issue", "Notify user", "Assign issue", "Resolve issue", "Update release notes" and "Inform user".

Additionally, in several places logical connectors are added to specify the control flow. After "Check issue", it is either valid, invalid or not reproducible. Because only a single flow is possible, this is represented by a XOR connector.

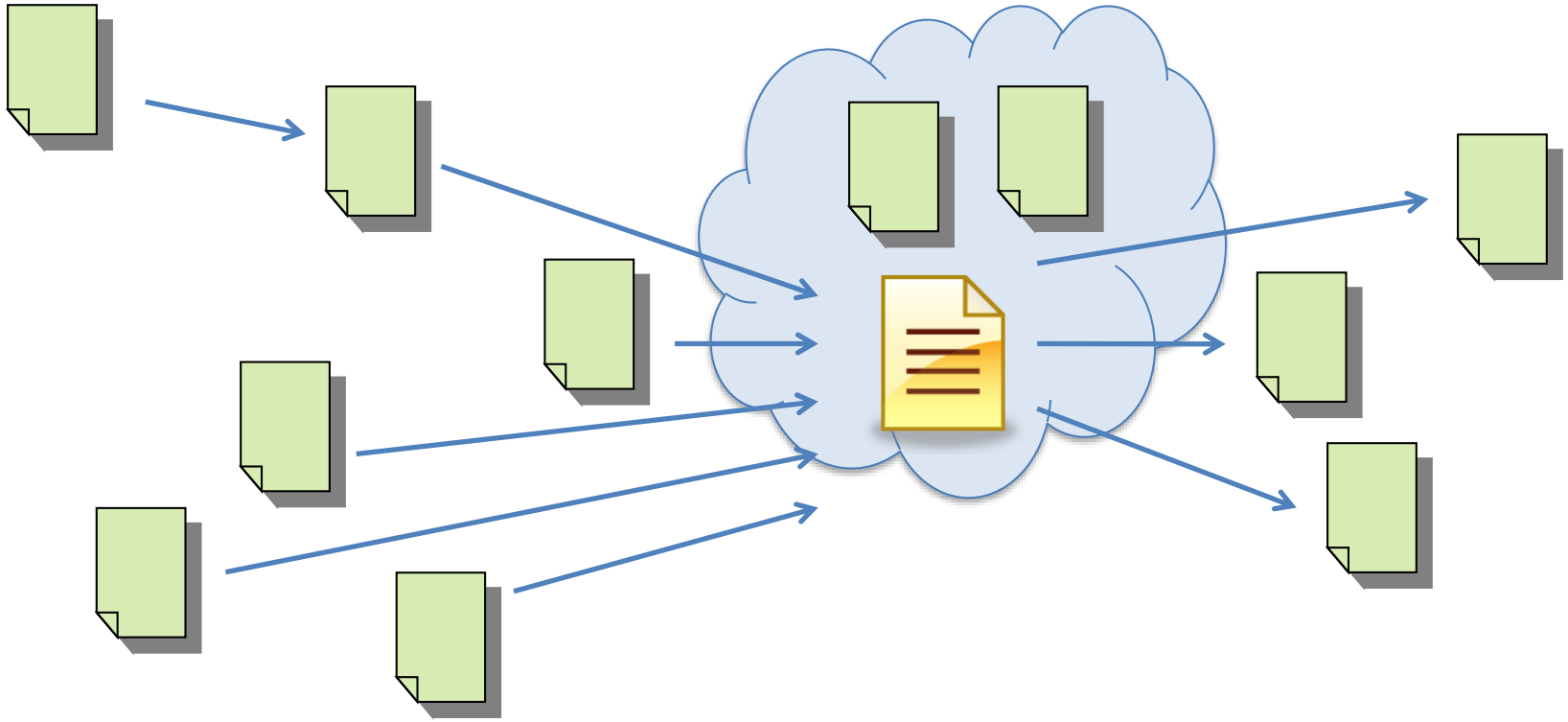


Related literature (1)

- *Related literature:* description of:
  - the origins of your topic (e.g. UML is based on the Object Modeling Technique, Object-Oriented Software Engineering and the Booch Method),
  - literature that you can use to position your topic (for example articles that compare different release planning techniques), and
  - literature that describes the application of the technique or method, for example in case studies, industrial surveys, comparisons, experiments, etc.
- This is called the literature perspective.



Literature perspective



2012 2013 2014 2015 2016 2017 2018

Finding literature

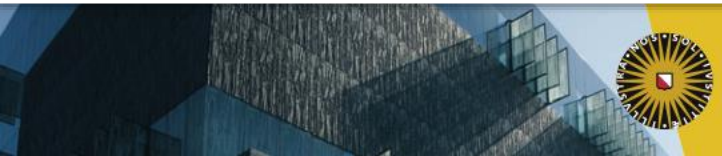
- Reliable sources: refereed sources, such as journal papers, conference papers, workshop papers, books, book chapters

- Refereeing is the quality check performed by peers, i.e., other scientists in the same field

- Less reliable sources: unrefereed sources, such as websites, technical reports, and white papers
  - Only use these if it really adds something!
  - See 3rd option assignment E

- Show you know the literature, but be selective

- Contact the authors - usually they are quite happy that someone shows interest in their work
  - See 2nd option assignment E

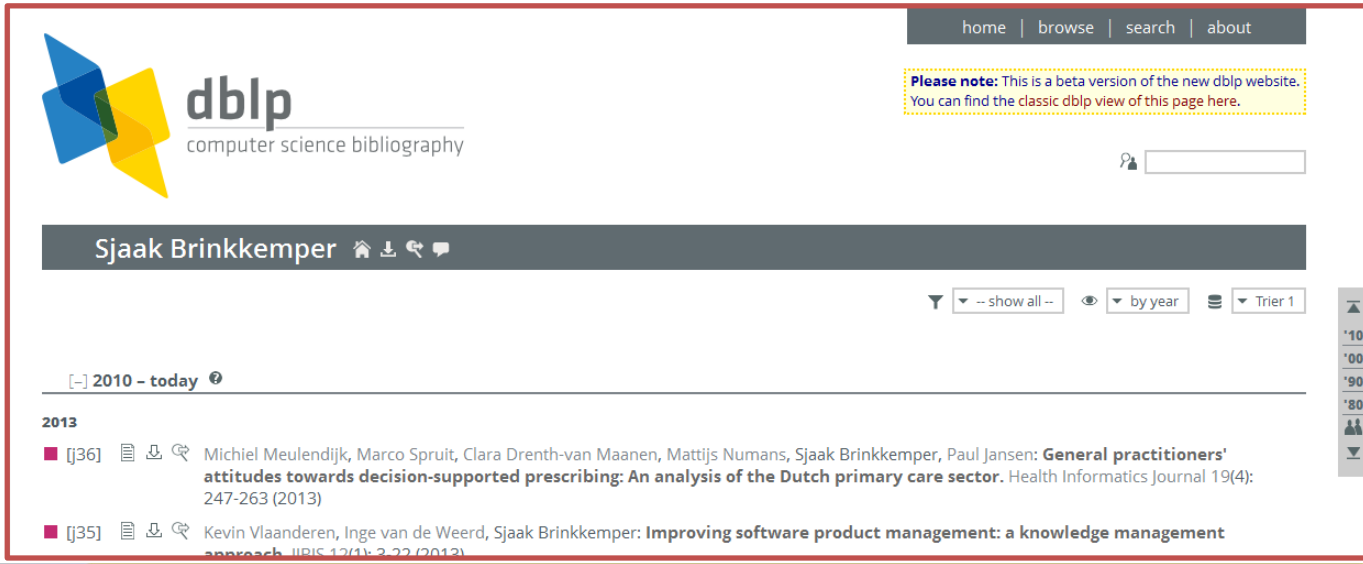


Related literature (4)

- Check references in the paper itself
- Check cites in Google Scholar:

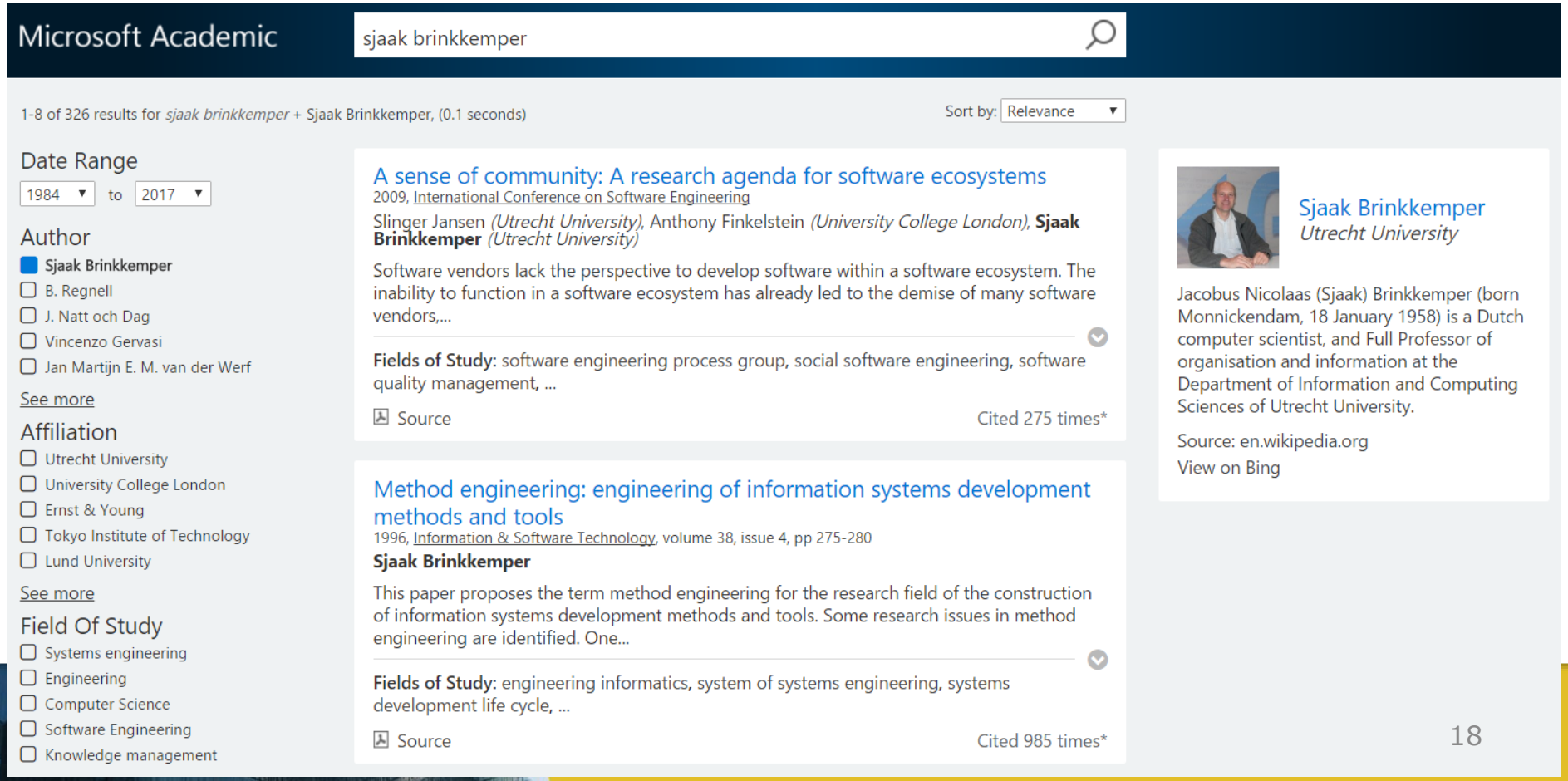
[PDF] A cost-value approach for prioritizing requirements
J Karlsson, K Ryan - IEEE software, 1997 - files.itslearning.com
... In practice, however, consistency ratios exceeding 0.10 occur frequently. REFERENCES 1. TL Saaty, The **Analytic Hierarchy Process**, McGraw-Hill, New York, 1980. CR CI RI = = = 0 12 0 90 0 14 . . . ... They can also use the information to develop strategies for **release planning**. ...
Cited by 304 - Related articles - View as HTML - BL Direct - All 22 versions

- Or in DBLP:

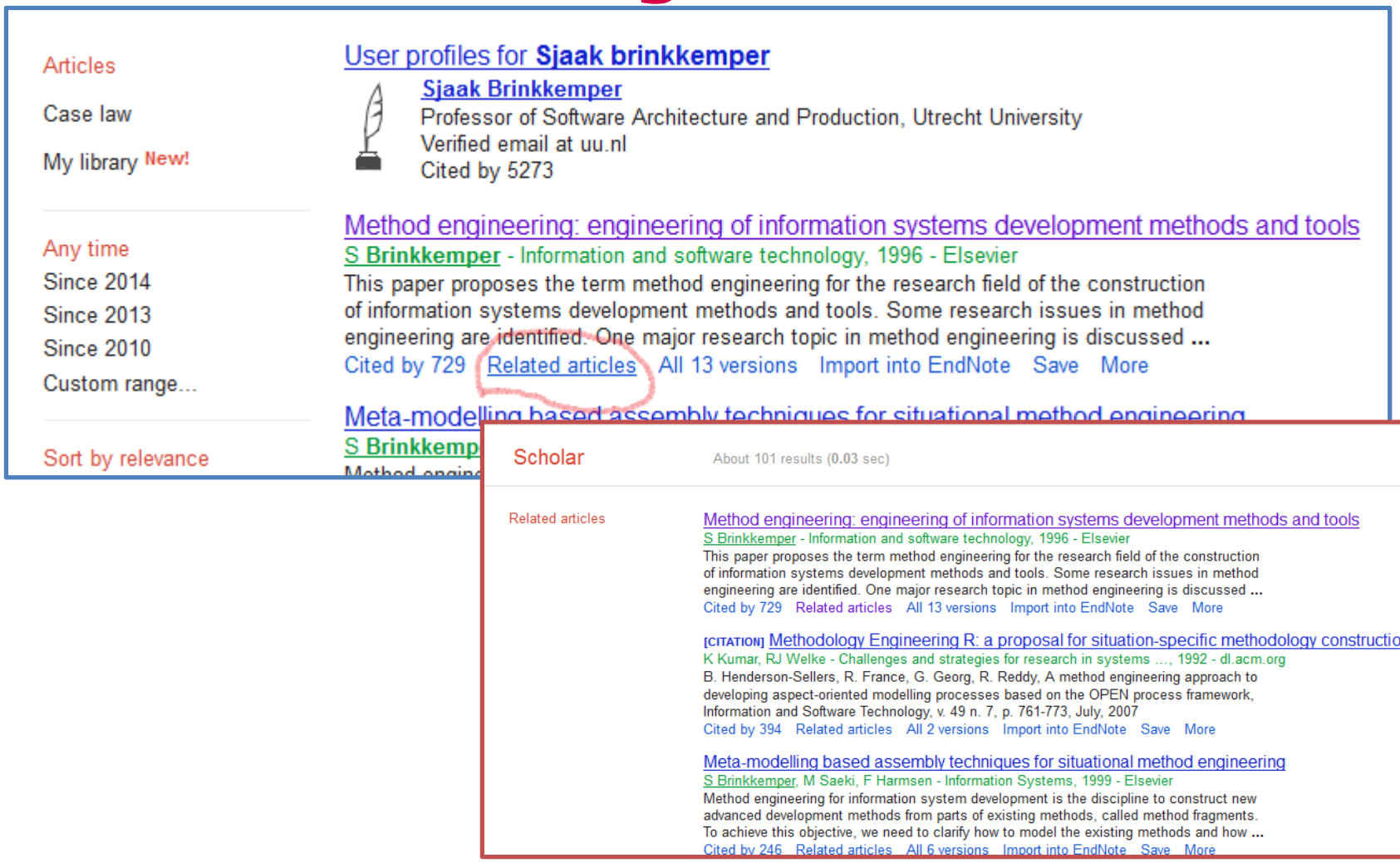


Related literature (5)

- Or in MS Research: (academic.microsoft.com)



Citation list Google scholar



References

- *References (at least 10):* a literature list with all references you mentioned in the rest of the assignment.

- Pay attention to the quality of the literature references:
  - use high quality books and articles from high quality journals or conferences.
  - do not use general popular websites, except when it is a very specialized site.

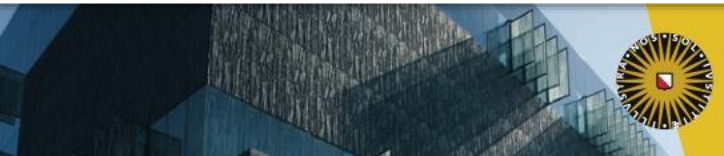
- References should be in APA citation style.

How to refer to other papers

- Karlsson and Ryan (1997) developed the cost-value approach for prioritizing requirements.

- One of the main techniques we build upon in this paper is the cost-value approach for prioritizing requirements (Karlsson & Ryan, 1997).

- Multiple papers of the same authors in the same year: use a, b, c, etc.
  Regnell and Wnuk (2009b) propose to develop …



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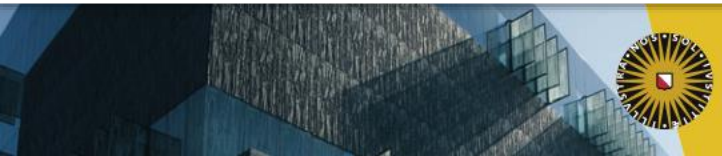


How to quote other papers (1/2)

- Use quotes sparingly - only when it is really needed, e.g. :
  - When you want to adopt a definition.
  - When the exact language of the source is important or controlling.
  - When the quote says something especially well or uses a colorful phrase that you think would entertain your readers.
  - When the speaker is widely recognized as an authority in a field related to your issue.
  - The quote is short (no half pages)

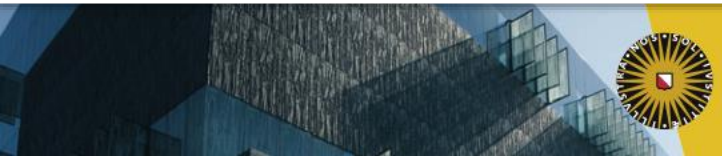
- Include page number(s)

How to quote other papers (2/2)

- Example:

  Brinkemper (1996, p. 276) defines method engineering as "Method engineering is the engineering discipline to design, construct and adapt methods, techniques and tools for the development of information systems".

- More than 40 words? Use block quotation (start on a new line, indent whole quotation)



Multiple authors

- 3, 4, or 5 authors:
  Cite all authors the first time the reference occurs. In all subsequent citations per paragraph, include only the surname of the first author, followed by "et al."

- 6 or more authors:
  Only surname of the first author, followed by "et al."

- Example:
  - …. (Kahraman et al., 2006)
  - Kahraman et al. (2006) describe…

et al.
abbr. Latin
et alii (and others)

Reference list (1)

- Various referencing systems
  - Harvard system
  - MLA style
  - Chicago Manual of Style
  - IEEE style
  - **APA Style**
  - Etc.

- We use APA style (check Blackboard: Assignments)

Reference list (2)

- Order your references alphabetically
  - Do not use numbering
- Complete incompletenesses
- Make sure the text has references occurring in the reference list and vice versa.
- If you use an automated reference tool (BibTex, Mendeley, EndNote, Zotero, Word), make sure the output is correct. If not, improve manually.

References to books (chapters)

- *Book*

  Author, A. (year). *Title of book.* Location: Publisher.

  Walrath, C., Bruns, E., Anderson, K., Glass-Siegel, M., & Wiest, M. D. (2000). *Race equality in health care and education.* Philadelphia: Ballière Tindall.

- *Book chapter*

  Author, A. (year). Title of chapter. In A. Name & A. Name (Eds.), *Title of the book.* (pp. pages). Location: publisher.

  Roy, A. (1995). Psychiatric emergencies. In H. I. Kaplan & B. J. Sadock (Eds.), *Comprehensive textbook of psychiatry.* (pp. 1739-1752). Baltimore: Williams & Wilkins.

References to journal papers

Author, A. (year). Title of the article. *Title of the Journal,* volume(issue), pages.

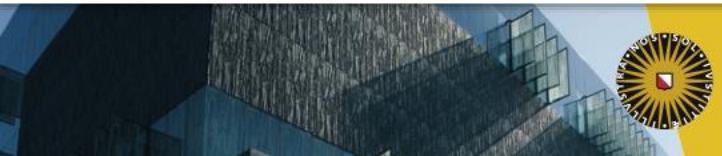
Baldwin, C. M., Bevan, C., & Beshalske, A. (2000). At-risk minority populations in a church-based clinic: Communicating basic needs. *Journal of Multicultural Nursing,* 6(2), 26-28.

References to conference / workshop papers (1)

- *As a book chapter (with editors known):*

  Author, A. (year). Title of paper. In A. Name & A. Name (Eds.) *Title of conference proceedings* (pp. pages). Place of publication: Publisher.

  Deci, E.L., & Ryan, R.M. (1991). A motivational approach to self: Integration in personality. In R. Dientsbier (Ed.), *Nebraska Symposium on Motivation: Vol. 38. Perspectives on Motivation* (pp. 237-288). Lincoln: University of Nebraska Press.



References to conference / workshop papers (2)

- *As conference/workshop proceedings with editors unknown:*

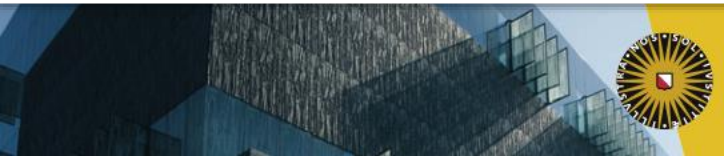
  Author, A. (year). Title of the paper. *Proceedings of the …*, Location of conference/workshop, pages.

  Weerd, I. van de, Brinkkemper, S., Nieuwenhuis, R., Versendaal, J., & Bijlsma, L. (2006). Towards a Reference Framework for Software Product Management. *Proceedings of the 14th International Requirements Engineering Conference*, Minneapolis/St. Paul, Minnesota, USA, 312-315.

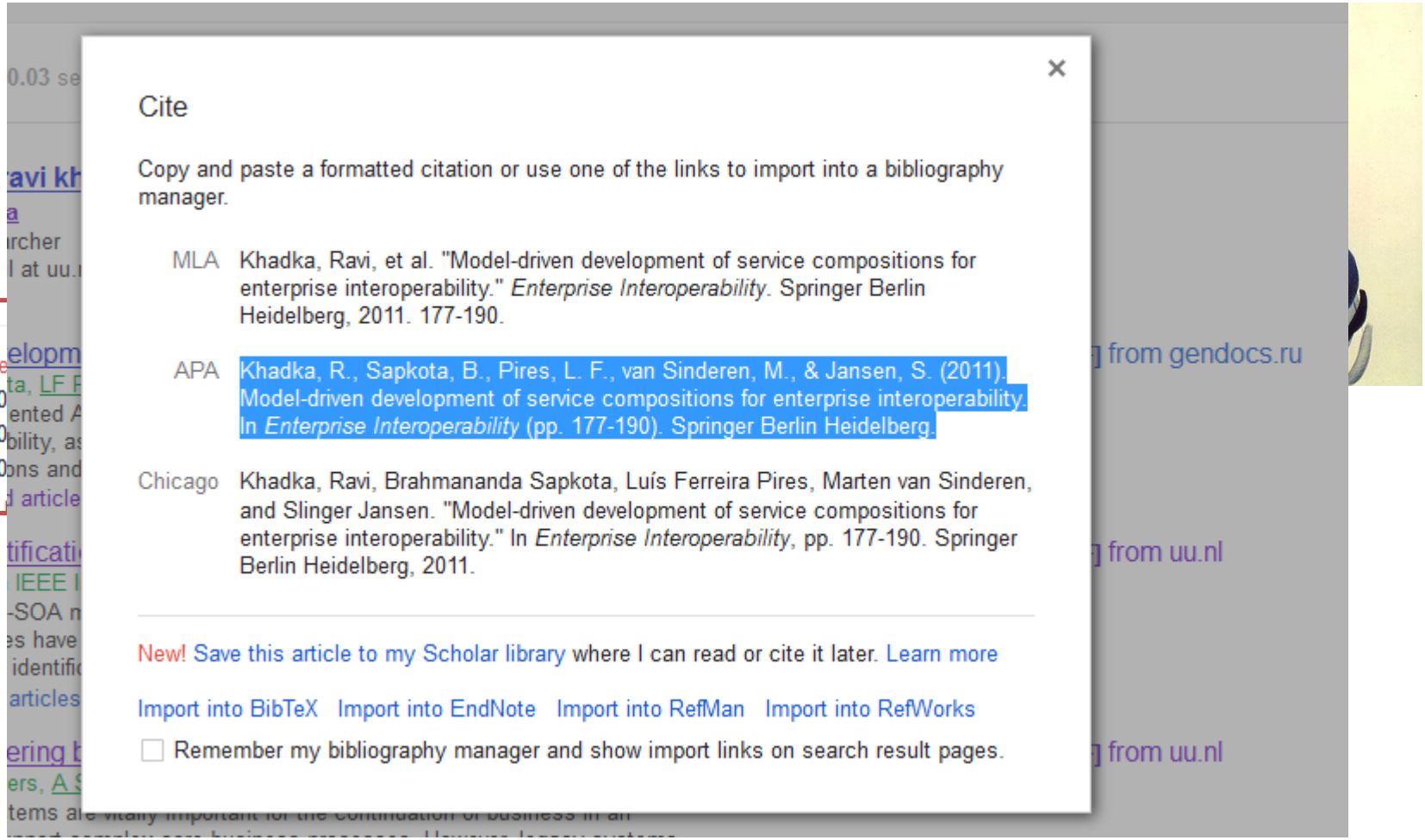
Other sources

- For referring to
  - technical reports,
  - dissertations, and
  - internet sources

- Use online APA manuals, e.g.
  - http://www.apastyle.org/learn/tutorials/basics-tutorial.aspx
  - http://en.wikipedia.org/wiki/APA_style
  - https://www.library.cornell.edu/research/citation
  - https://www.igi-global.com/publish/contributor-resources/apa-citation-guidelines



Google scholar is great



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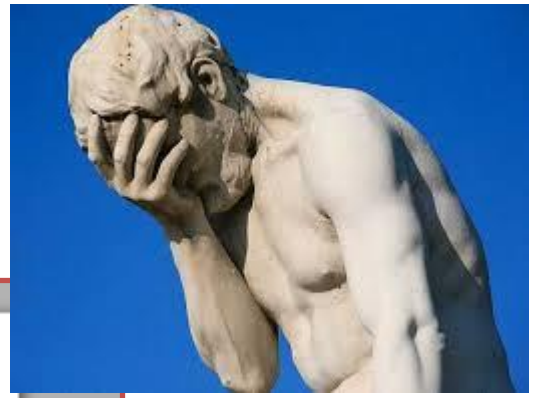

tion has received much interest from both the academic researchers

Cite

Copy and paste a formatted citation or use one of the links to import into a bibliography manager.

MLA Khadka, Ravi, and Brahmananda Sapkota. "An evaluation of dynamic web service composition approaches." (2010): 67-79.

APA Khadka, R., & Sapkota, B. (2010). An evaluation of dynamic web service composition approaches.

Chicago Khadka, Ravi, and Brahmananda Sapkota. "An evaluation of dynamic web service composition approaches." (2010): 67-79.

New! Save this article to my Scholar library where I can read or cite it later. Learn more

Import into BibTeX Import into EndNote Import into RefMan Import into RefWorks

Remember my bibliography manager and show import links on search result pages.

concept assignment approaches to extract services from legacy ...

What we expect?

- That an ME student sets an example!

Requirements vs. Reality

1. Have one trunk
2. Have four legs
3. Should carry load both passenger & cargo
4. Black in color
5. Should be herbivorous

1. Have one trunk ☑
2. Have four legs ☑
3. Should carry load both passenger & cargo ☑
4. Black in color ☑
5. Should be herbivorous ☑

Our Value add:

Also gives milk ☺

Some general remarks on writing (1)

- For all common mistakes found last year, see Blackboard

- Each paragraph should deal with only one subject
- Paragraph's structure:
  - a message with a head,
  - a body,
  - and a tail
- Be careful with repetition
- Have a good flow of reasoning in each chapter
  - Ensure relation between paragraphs (the 'red thread')

Some general remarks on writing (2)

- Pitfalls
  - Sentences too short, too long, too complex
  - Ambiguity, irrelevance, and unclearness
  - Unclear line of reasoning
  - Missing argumentation
  - Too woolly

  - Unexplained jargon
  - Grammar and spelling

  - Usage of we, I, they, this, at the same time → for this assignment we prefer that you avoid the use of "we" or "I"
  - Usage of "will" too much

Submitting

- Deadline: Friday, 22 February 2019, 18h00 (Sharp)
- Submit your **pdf** document to:
  - Revisely
  - See instructions on Blackboard
- Failing to submit on time causes a 1.0 pt deduction per day (starting after 22 February 2019, 18h00)!

Assignment B

- Once the deadline of assignment A has passed, the ME lecturers will allocate three peer-reviewers to the submitted deliverables in Revisely
- Follow the instructions on Blackboard
- Finalize your reviews in Revisely by 1 March 2019, 18h00
- Failing to finalize your peer review on time or failing to deliver a *serious* peer review will result in the deduction of *one point per day* from your own *final paper* grade, starting after 1 March 2019, 18h00

QUESTIONS?