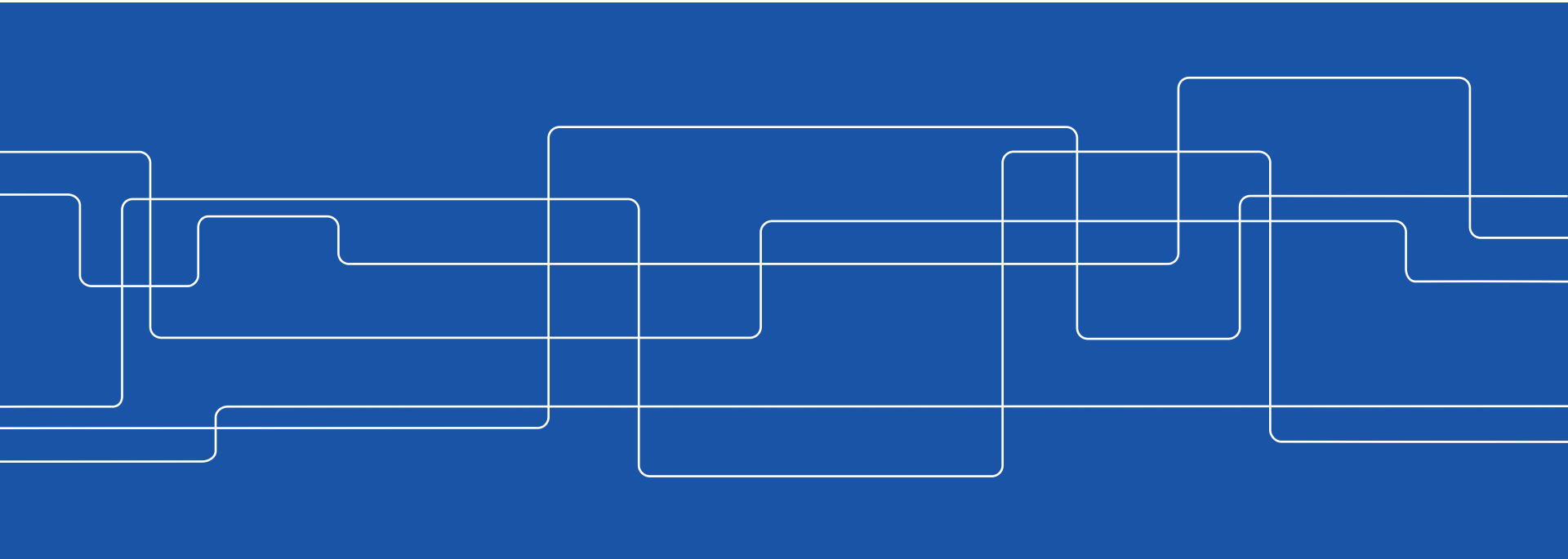




Teaching information literacy for engineering students in a rapidly changing landscape

Creating Knowledge VIII,
Reykjavik, June 3, 2016



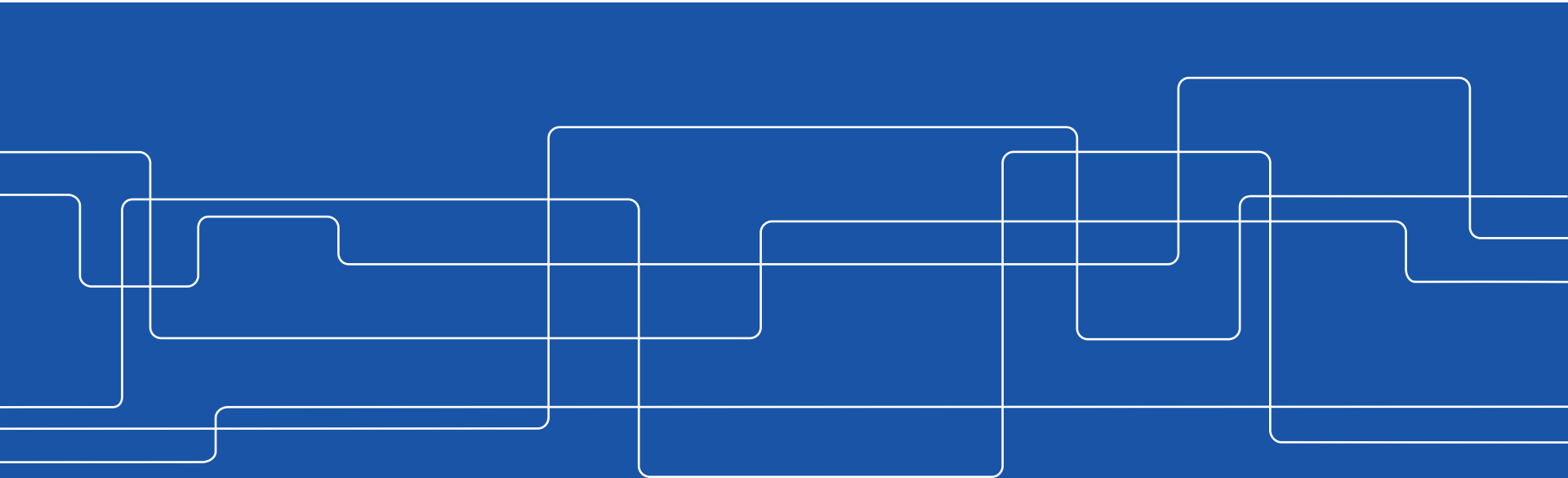


Teaching information literacy for engineering students in a rapidly changing landscape

Dr. Göran Hamrin, Logician Lecturer Librarian.

Director of studies, KTH Library. ghamrin@kth.se

(work in progress w/Drs. Rosa Lönneborg&Maria Unger)

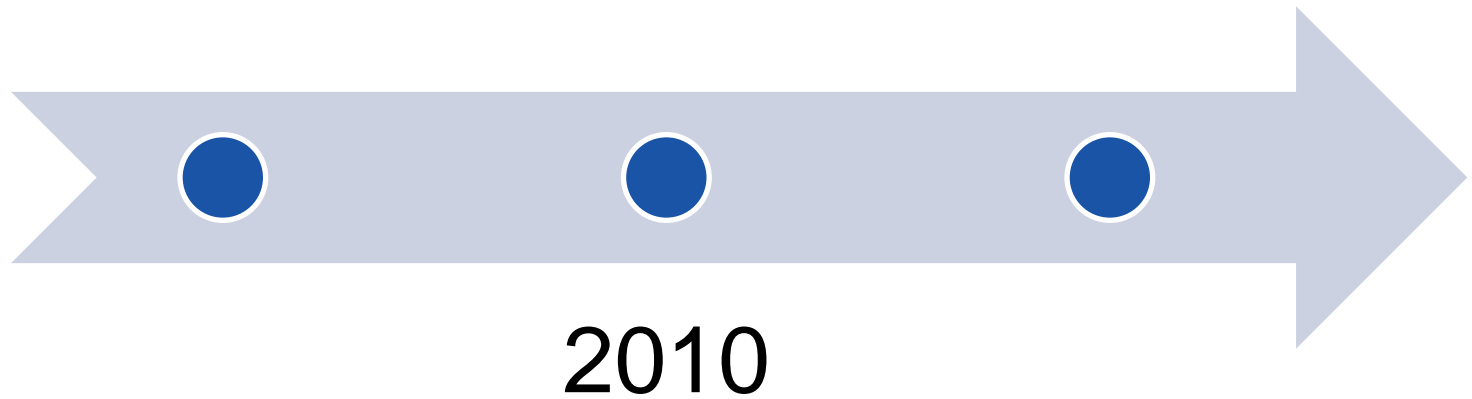




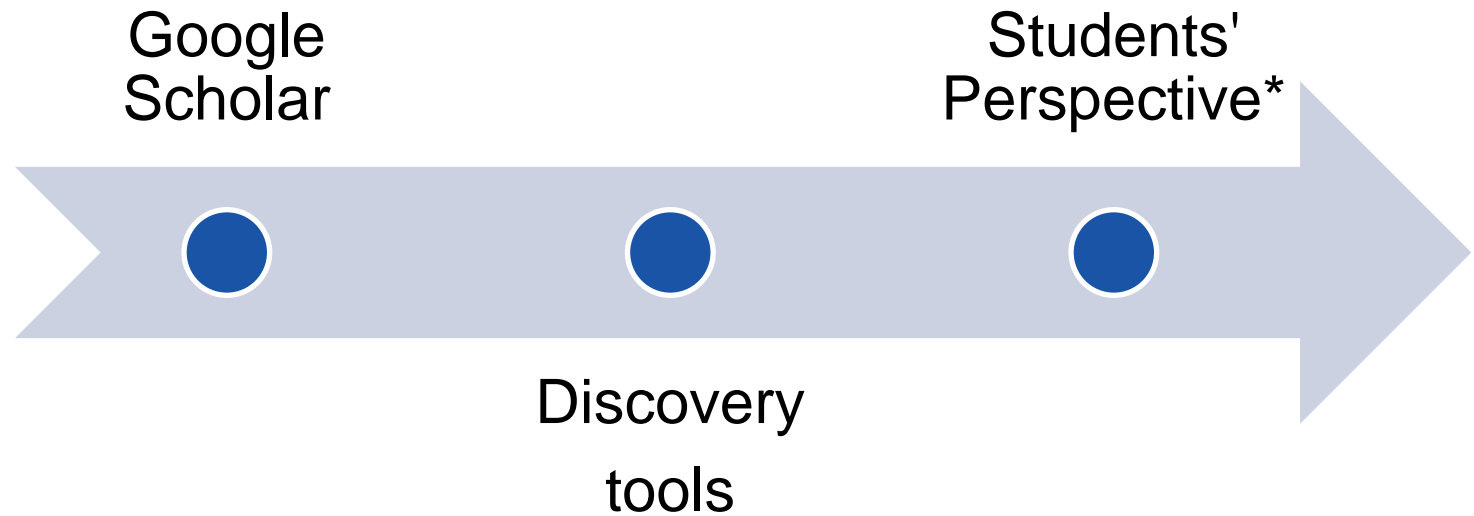
A rough timeline of changes

2005

Today



Global changes

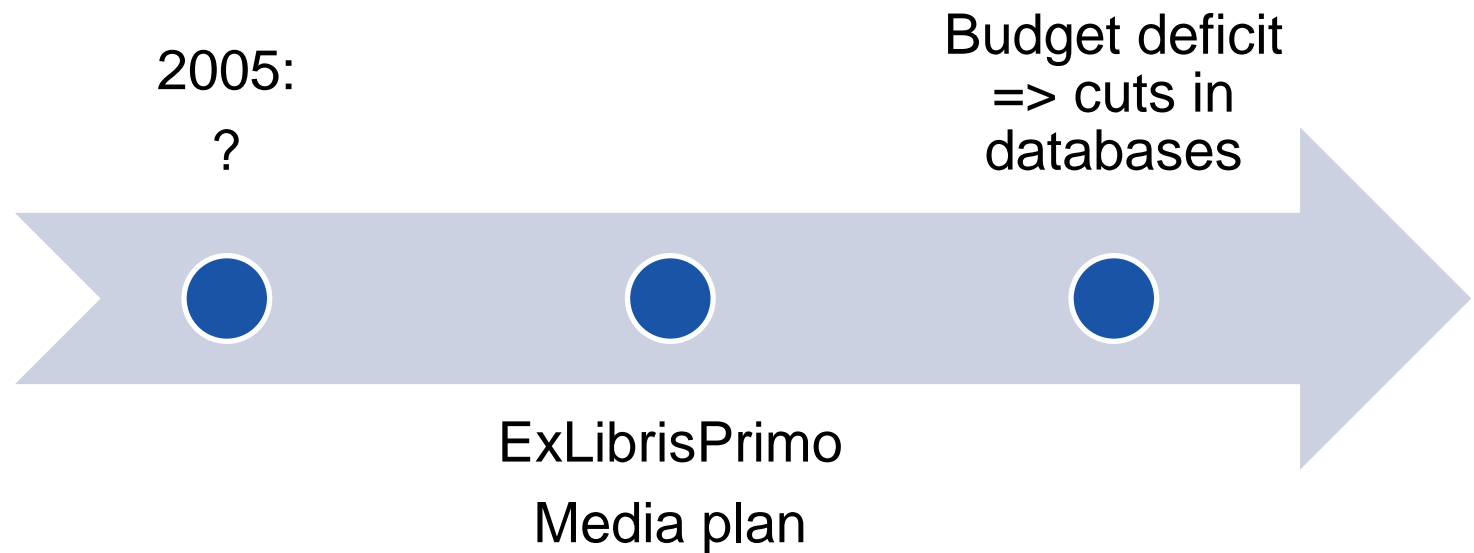




*Students' perspective – (sloppy) summary

- "Why not just Google it?" [1]
- "What is a bibliographic database?" [existence=full-text]
- "Do I have to read the course literature?" [Swedish "full-time" university studies]
- "I will work as an engineer/programmer, not as a scientist." [frequent comment on student evaluations]
- "I know exactly what kind of information I need." [The student claims to be an expert.]

Changes locally@KTH

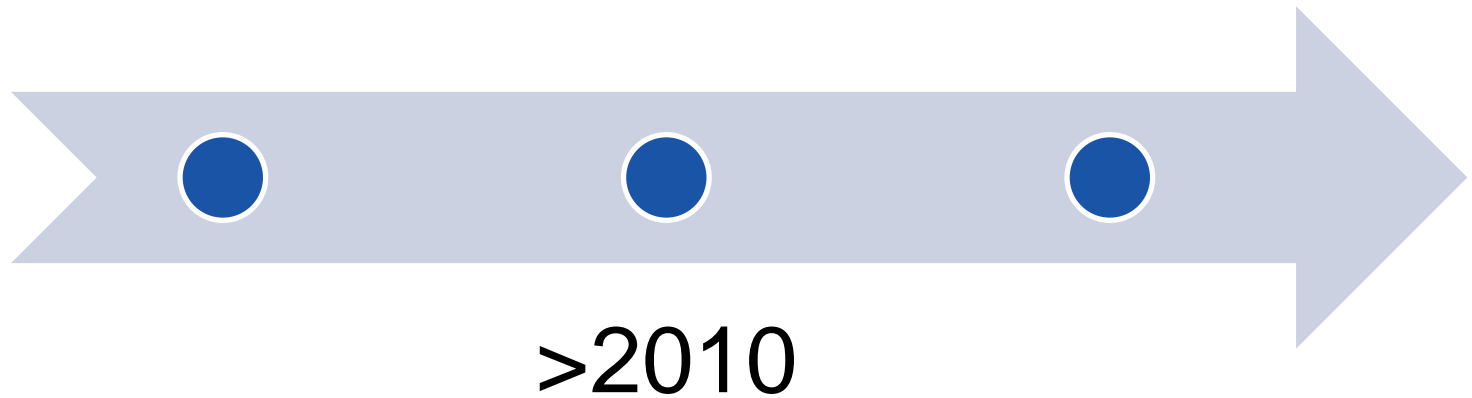




Teaching and learning quality development via syllabus update – our 1 week course

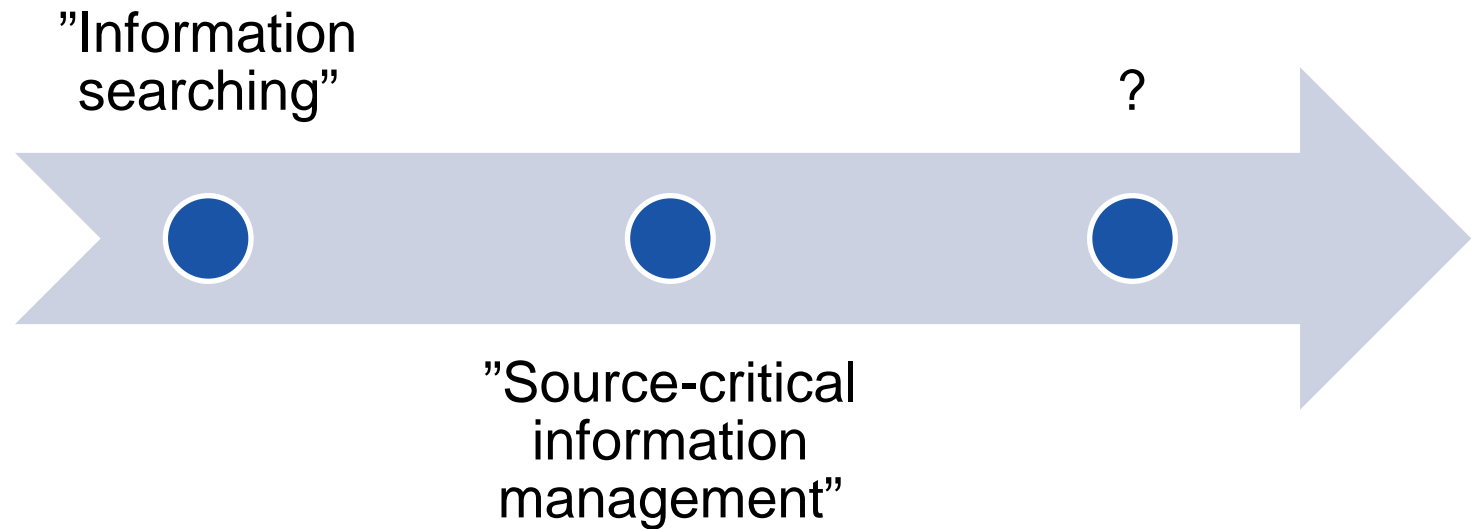
<2009

Today





Changing the course focus – signalling it via change in course name





Changing the course focus by changing the Intended Learning Outcomes

- Intended Learning Outcomes (ILOs) are the content declaration or "contract" for the course.
- Constructive alignment gives that a change in the ILOs implies a change in teaching activities and assessments
- Hence, a course change is an iterative process where you:
 - 1) write ILOs,
 - 2) construct relevant exam activities
 - 3) define the structure of learning activities
- This is summarized in the KTH official course syllabus and in detailed course memos to the students.



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- **Synergistic effect 1:** this is a basis for continuous assessment of our IL-teaching via performance rates and course evaluations

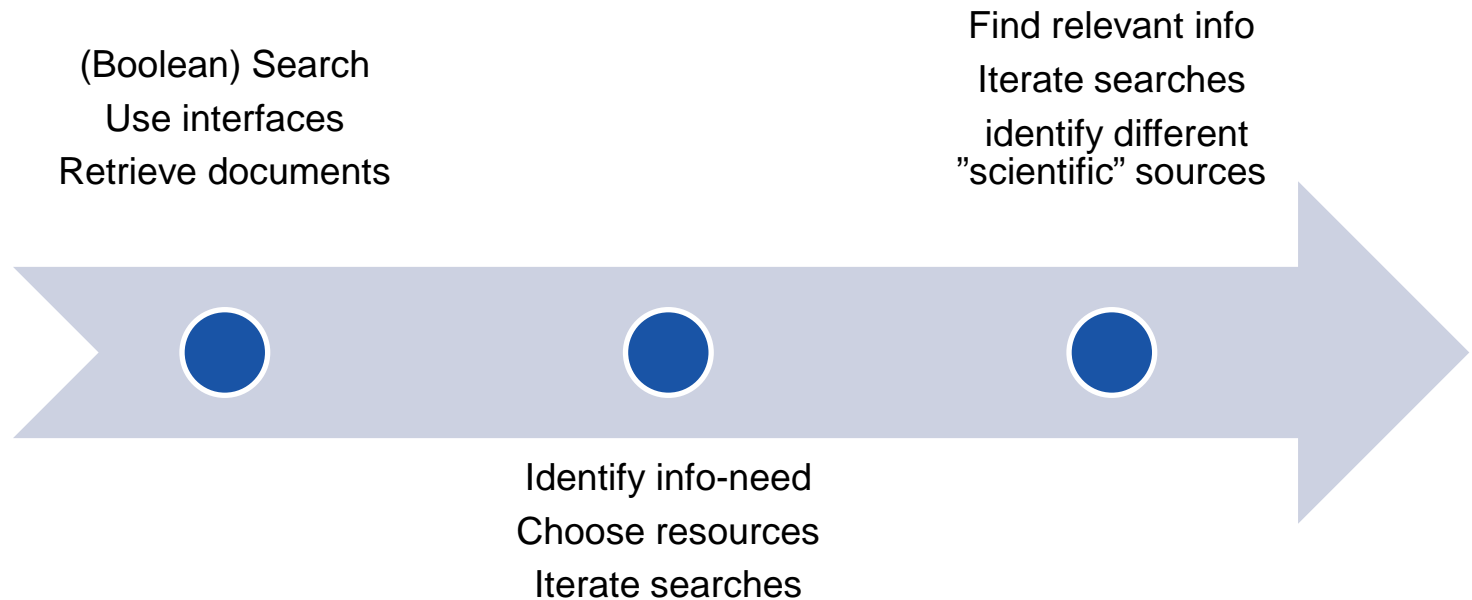


Changing the course focus by changing the Intended Learning Outcomes

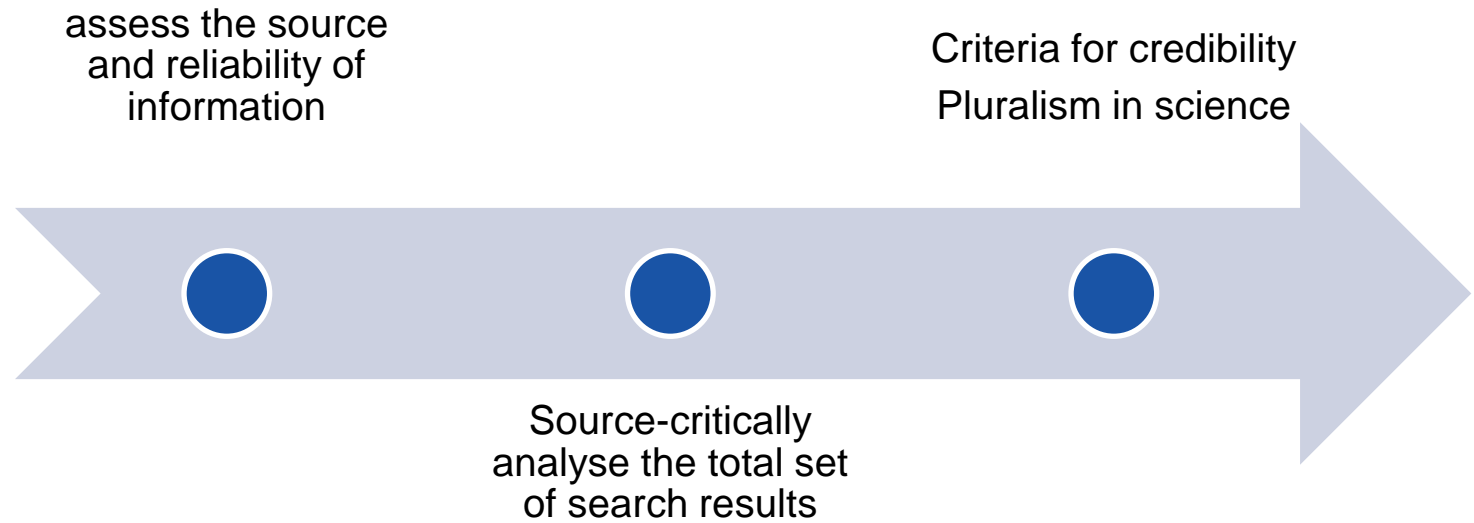
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 - 1) write ILOs,
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- This is summarized in the KTH official course syllabus and in detailed course memos to the students.
- **Synergistic effect 2:** this is also a tool for marketing our IL-activities for integration into other KTH-programs and thesis/project courses.

Changing focus via change of verbs

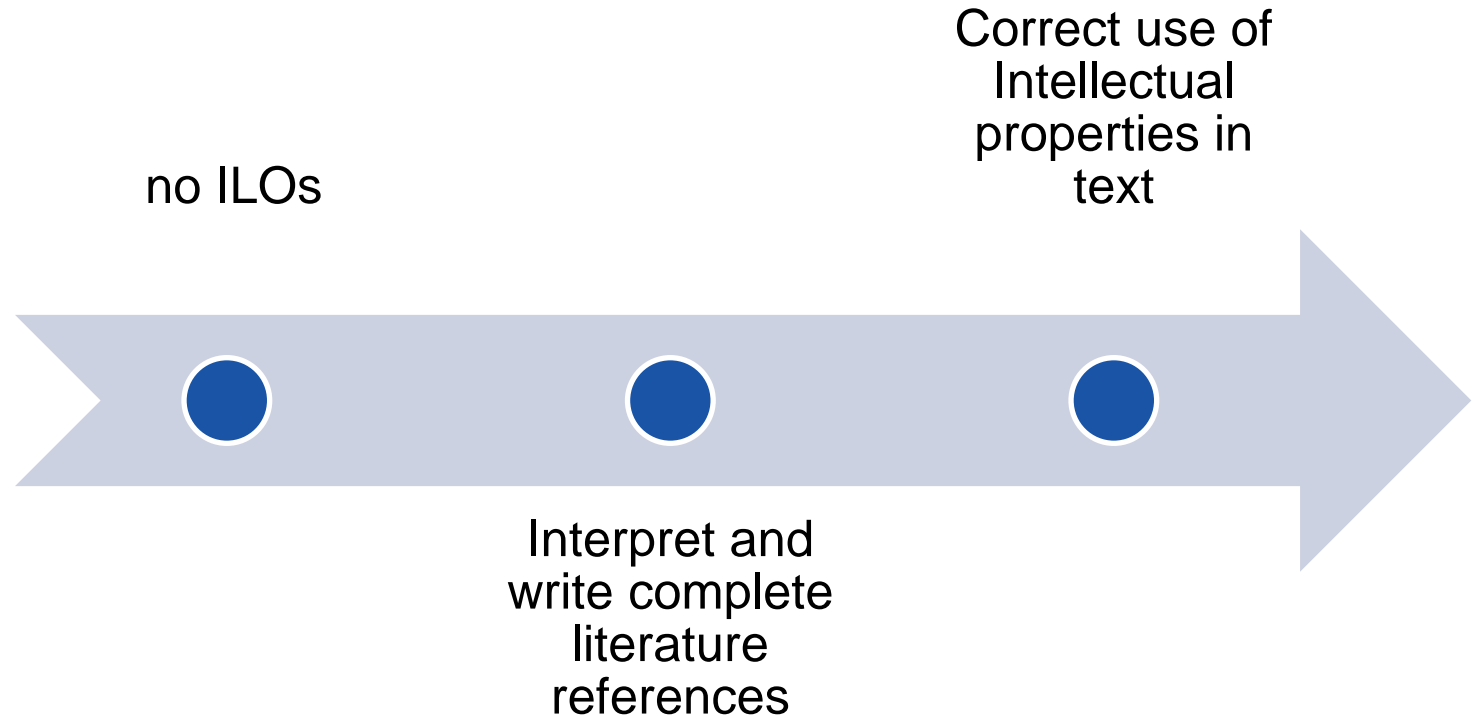
Intended Learning Outcome 1: "search"



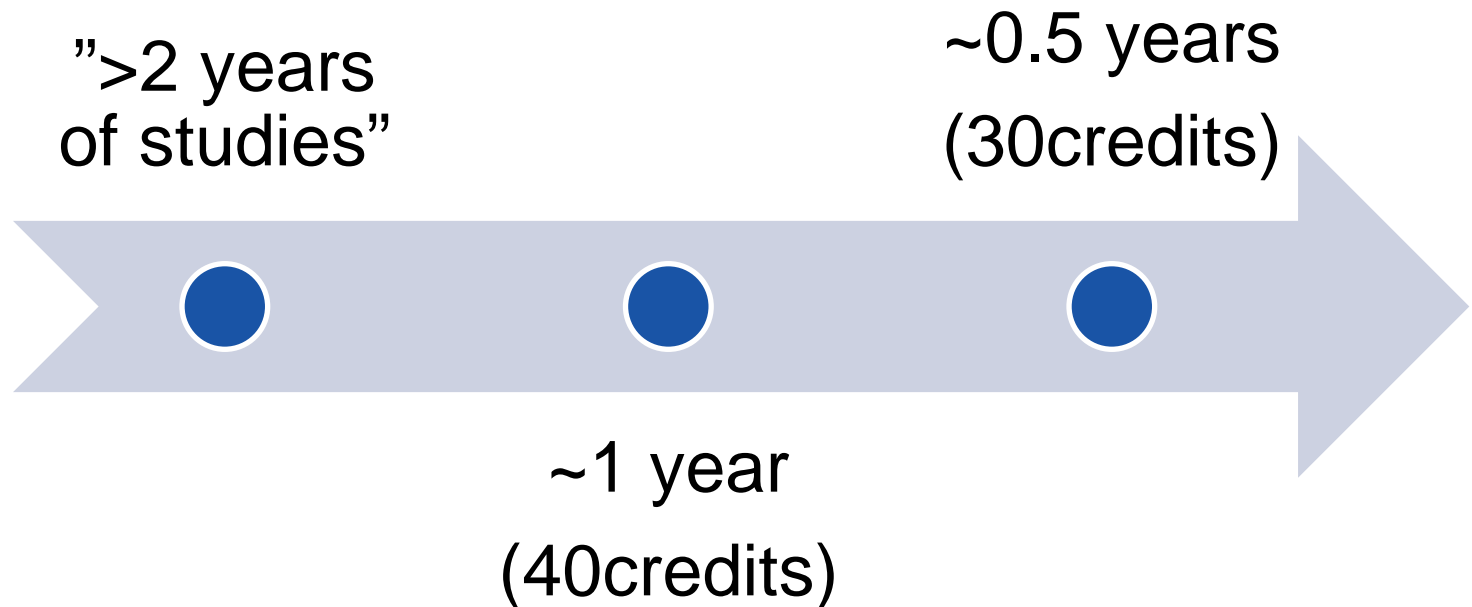
Intended Learning Outcome 2: "evaluate"



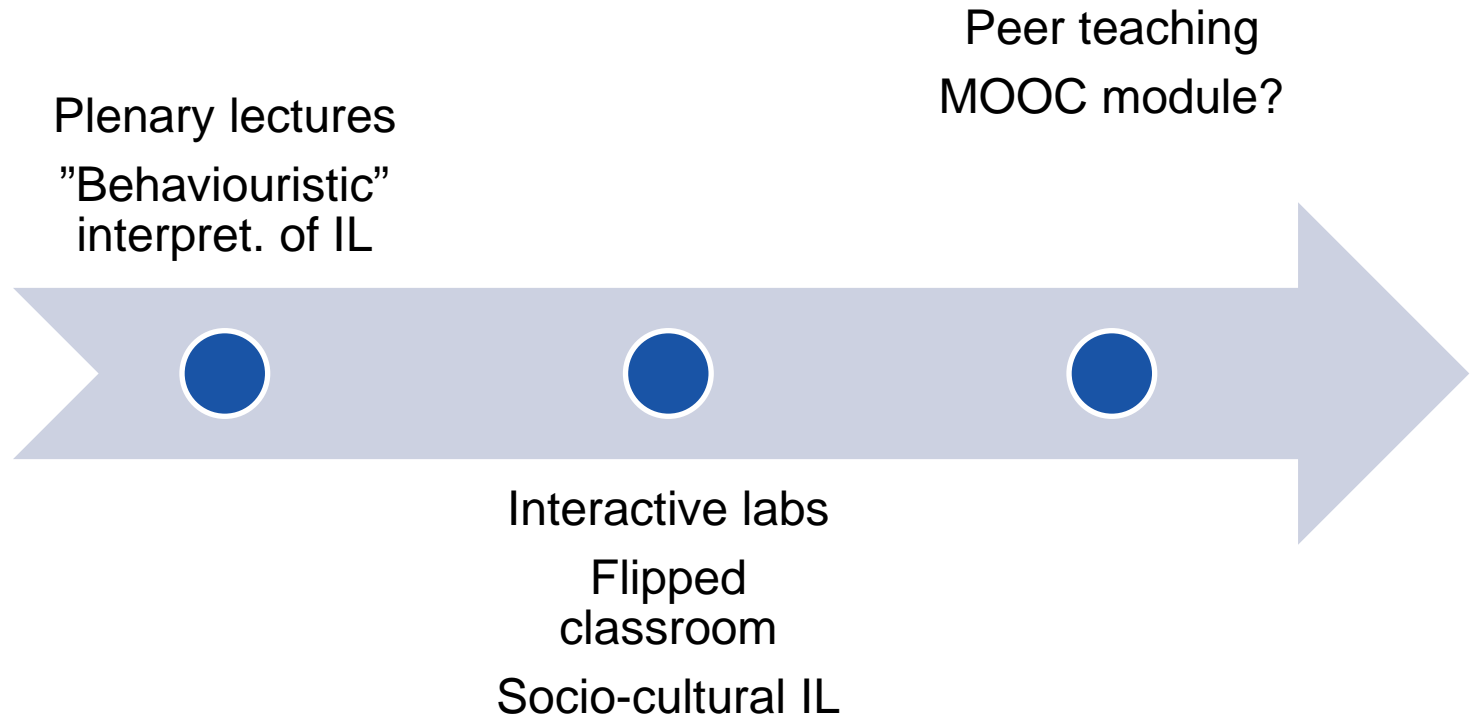
Intended Learning Outcome 3: "cite"



Changing course prerequisites=eligibility [answer to a need for earlier IL-teaching]



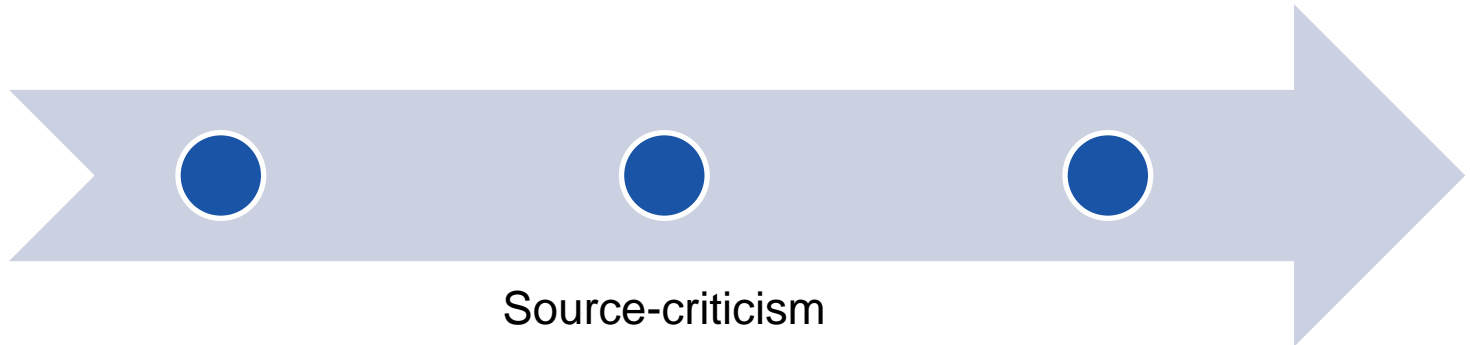
Changing didactics teaching IL



Summary of focus changes

Licensed
databases
Boolean
searching

Tool-independent
information literacy
Using IP in text



Source-criticism
Iterative searching
Modernized
pedagogics



Links & documents

- KTH Library: www.kth.se/kthb
- ECE-courses: <https://www.kth.se/student/kurser/org/LGC>
- G Hamrin: "Informationskompetens för ingenjörer" ["Information literacy for engineers"] In: Kungl. biblioteket (2015). *Bortom förlägenheten: bibliotekariens pedagogiska roll i utveckling*. Stockholm: Kungl. biblioteket. (available @ http://www.kb.se/Dokument/Aktuellt/publikationer/Antologi_Bortom_webb.pdf [2006-05-19])
- ~5 years of student feedback and course evaluations.



Bibliography, selected

- [1] Kingsley, Karl, et al. "Why not just Google it? An assessment of information literacy skills in a biomedical science curriculum." *BMC medical education* 11.1 (2011):1
- [2] Daugherty, Alice L., and Michael F. Russo. "An assessment of the lasting effects of a stand-alone information literacy course: the students' perspective." *The Journal of Academic Librarianship* 37.4 (2011): 319-326.
- [3] Wang, Li. "An information literacy integration model and its application in higher education." *Reference Services Review* 39.4 (2011): 703-720.
- [4] Catalano, Amy. "Patterns of graduate students' information seeking behavior: A meta-synthesis of the literature." *Journal of Documentation* 69.2 (2013): 243-274.
- ...

Questions? Contact? Thanks!



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Engineering sciences

