Literature Study – Some Principles (II)

❑ Step 2: Find the references and collect the papers as PDF files

➢ Important to have papers in electronic and not only in printed format

➢ Enables you to archive papers, to distribute them, to print them, etc.

➢ Look into the references (bibliography) of papers to find references of new papers

➢ First tree structure, then increasingly back links to already found papers

➢ Ideal goal: Links emanate from all leaf nodes back to inner nodes of the tree

❑ Step 3: Read at least the Abstract of all papers and determine semantic categories

➢ Reading the Introduction can also be very helpful

➢ Examples of categories: modeling, algorithmic design, index structures

➢ Categories should be

❖ mutually exclusive (no overlaps) and

❖ complete (each article must belong to a category)

Literature Study – Some Principles (III)

❑ Step 4: Assign all papers to the categories determined

❑ Step 5: Read all papers in order to get the **big picture**
  ➢ This does not mean that you have to understand each single detail
  ➢ Details can be understood later
  ➢ Rough understanding of problems, goals, and solutions needed
  ➢ Big picture is needed to avoid duplicating existing research results
  ➢ Big picture is needed to be able to produce novel research results

❑ Results of a literature study
  ➢ are needed for writing Section 2 of a research or technical paper, PhD thesis, Master thesis, report, essay, etc.
  ➢ Section 2 is usually titled "Related Work".

Literature Study – Some Principles (IV)

❏ Purposes of the Related Work section

➢ Provide the reader with an overview of

❖ the problem solutions already proposed in the literature

❖ weaknesses of these solutions

➢ Bring your solution into a relationship with each existing solution

❖ Compare your proposed solution with each existing solution

❖ Indicate how your solution eliminates their weaknesses

❖ This aspect is often forgotten in papers

Preparing and Holding a Presentation (I)

❑ No universal recipe available for holding a presentation

❑ But a number of mistakes can be avoided

❑ Presentation should have a personal style, that is, it also depends on the presenter's character

❑ Be clear in your statements and explain your concepts

❑ Plan the outer circumstances of a presentation

➢ How much time do I have?

→ Impact on the number of slides

➢ How complex are the slides on average?

→ Impact on the number of slides

➢ Who is the audience?

→ Impact on the complexity of the slides

→ Impact on the language of the slides

➢ How much knowledge can I assume the audience has?

→ Impact on the degree of introduction needed

Preparing and Holding a Presentation (II)

❑ General aspects of slide design

➢ Do not put too much text on a single slide

➢ Only show keywords

➢ Use figures as illustrations ("a drawing says more than 1000 words")

➢ Use applications to illustrate concepts

➢ Do not overwhelm the audience with formalism

➢ Use appropriate, readable fonts: not Times but Helvetica, Arial

➢ Use appropriate font size: at least 18 points

Preparing and Holding a Presentation (III)

❑ General aspects of presentation style

➢ Practice your presentation several times

➢ Stay with your front to the audience

➢ Do not read slides! Do not read notes!

➢ Speak with a clear and loud voice (low voice interpreted as weakness)

➢ Do not speak in a monotonous and boring manner

➢ Keep eye contact with your audience

➢ Speak freely without any notes

➢ Everything you show on a slide must be explained! Otherwise, don't show it!