SCIENTIFIC RESEARCH METHODOLOGIES AND TECHNIQUES

Unit 3: LITERATURE REVIEW

Luis M. Camarinha-Matos
lcm@fct.unl.pt or cam@uninova.pt

PDEEC - PhD Program on Electrical and Computer Engineering

1. PURPOSE

Motivation for literature review

- Brings clarity and focus to your research problem
  - Helps you understanding the subject
  - Helps you to conceptualize your research problem
  - Helps identifying relationships with existing body of knowledge
- Improves your research method
  - How the others have approached the problem
  - Which methods others have used and which difficulties they faced
- Broadens your knowledge base in your research area
  - You need to know where we are and where the gaps are
- Helps identifying trends
  - It is convenient to know what are the hot research topics in the area
  - Also what are the assessment criteria in use
- Contextualizes your findings
  - How your results fit into the existing body of knowledge
  - How do your results differ from others

© L.M. Camarinha-Matos 2022

Conceptual framework & related work

For a while you'll be (very) confused !

Diversity of opinions, agreements, disagreements, perspectives, partial relation to your work, diversity of terminology (specially in new areas), ...

Build a conceptual framework
(on your mind first)

- Your work won't be accepted for publication without a proper study of and comparison with related work.

- Used ideas, results, ... from others must be properly referenced
  - Facilitate contextualization
  - Ethical issue – Plagiarism, reputation

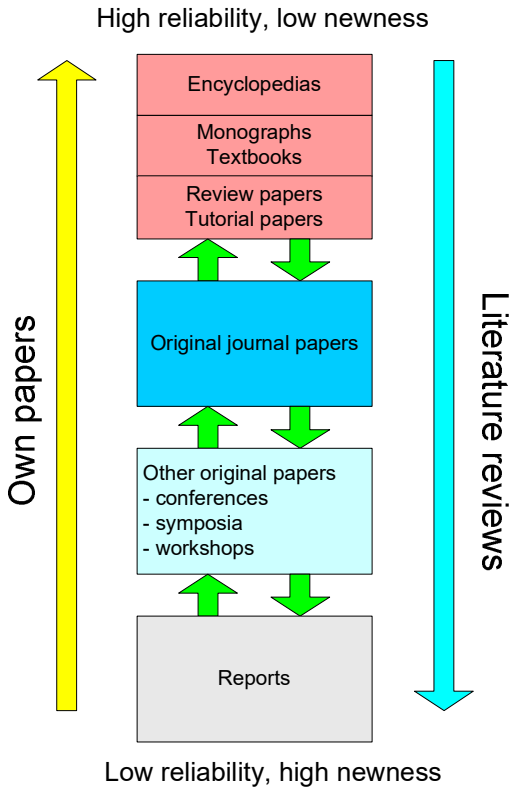
© L.M. Camarinha-Matos 2022

2. SOURCES

© L.M. Camarinha-Matos 2022

Traditional sources

- Books
- Journal papers
- Conference papers
- Technical reports



[Mämmelä, 2006]

© L.M. Camarinha-Matos 2022

Online sources

b-on resources

- Most publishers are making their products accessible online (subject to subscription)
- Reference databases are also available online
- Some scientific associations give online access to their publications for subscribers / members
- There is a trend in Universities to subscribe packages guaranteeing access to contents from multiple publishers.

Example:
In Portugal the b-on initiative offers a collective package of on-line subscriptions (table)

… also the open access movement !

Publisher	Nº of titles
Academic Search Complete	9791 total 5795 periodicals
American Chemical Society	34 periodicals
American Institute of Physics	12 periodicals
Annual Reviews	32 periodicals
Association for Computing Machinery	6 periodicals 10 magazines 28 transactions 256 proceedings 56 newsletters 24 affiliated pubs
Association for Computing Machinery	c. 1 million records
Business Source Complete	4056 total 3166 periodicals
Current Contents (ISI)	n.a.
Derwent Innovation Index (ISI)	n.a.
Elsevier	1961 periodicals
Essential Science Indicators (ISI)	n.a.
Eric	n.a.
IEEE	280 periodicals 10093 proceedings 1004 standards
Institute of Physics	36 periodicals
ISI Proceedings	n.a.
Journal Citation Reports	n.a.
Royal Society of Chemistry	34 periodicals
Sage	66 periodicals
Society for Industrial and Applied Mathematics	14 periodicals
Springer	1132 periodicals
Taylor& Francis	1221 periodicals
Web of Science	n.a.
Wiley	477 periodicals
Zentralblatt	n.a.

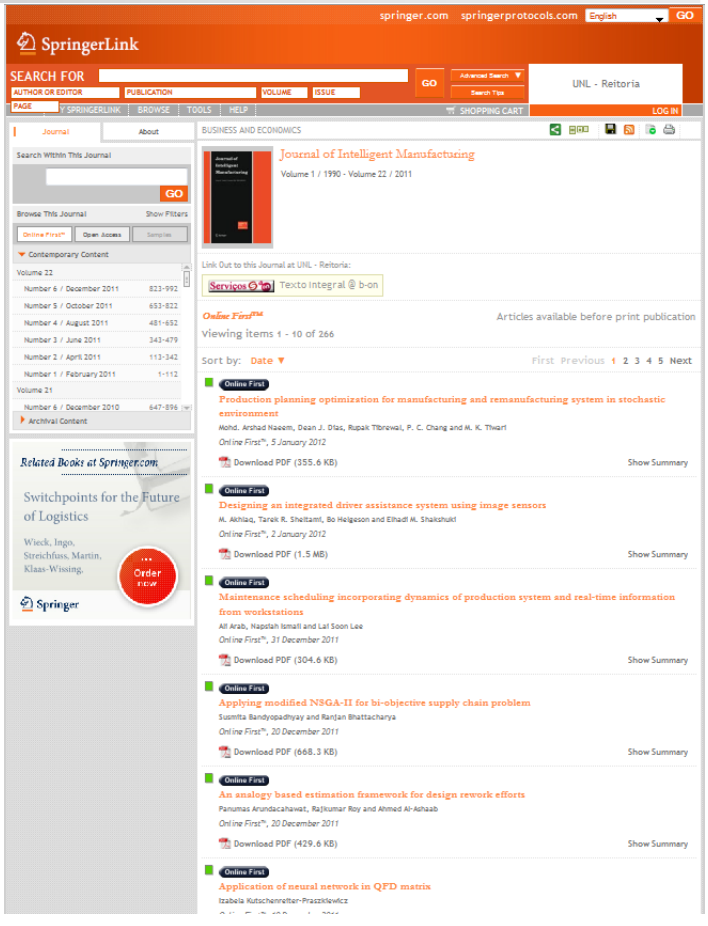
© L.M. Camarinha-Matos 2022

Online sources …

An example of technical publisher

Springer

-> Access to journals
-> Access to some proceedings
(e.g. Proceedings from IFIP conferences)
... "Readers room"



© L.M. Camarinha-Matos 2022

Online sources ...

An example of technical society:

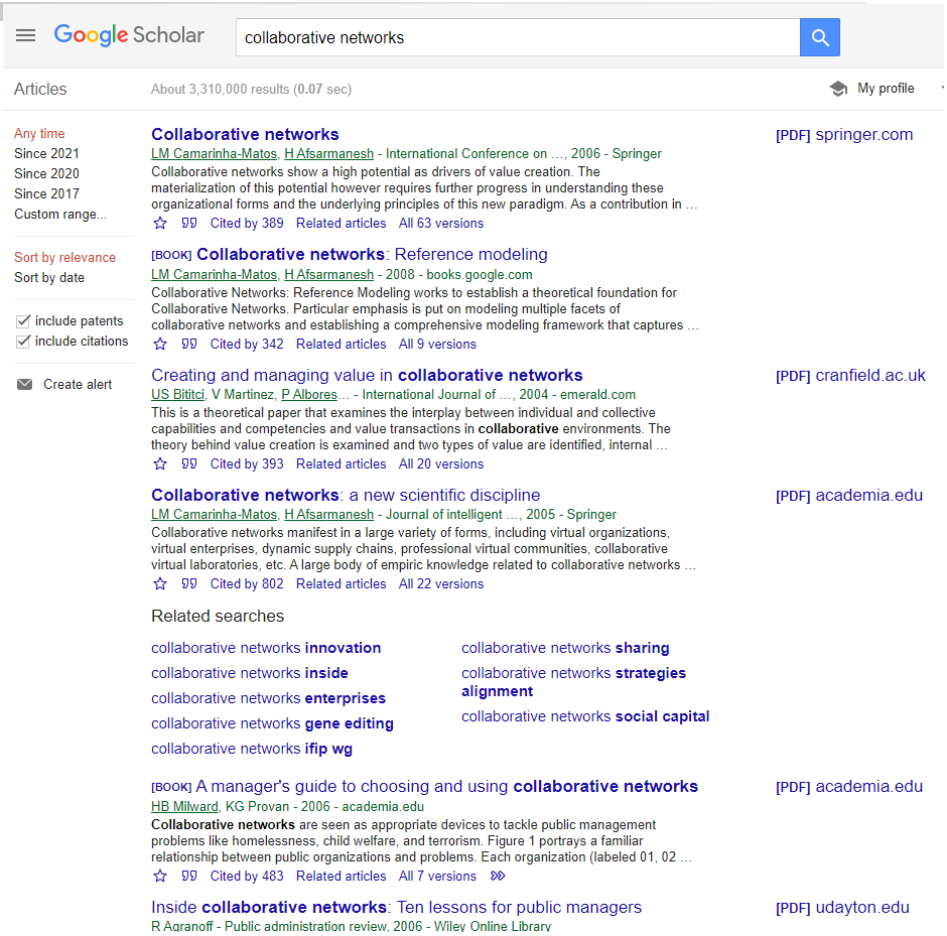
IEEE

© L.M. Camarinha-Matos 2022

Online sources ...

Access to papers available via the web

http://scholar.google.com/



© L.M. Camarinha-Matos 2022

Online sources ...

- Many authors make their papers available through their web sites (found by Scholar Google)

- As having publications on-line increases the chance of being cited, many universities are promoting mechanisms to have the publications of their members online

  ... But there is the problem of Copyright ! (if not "open access")

  ... Some tricks to solve the problem.

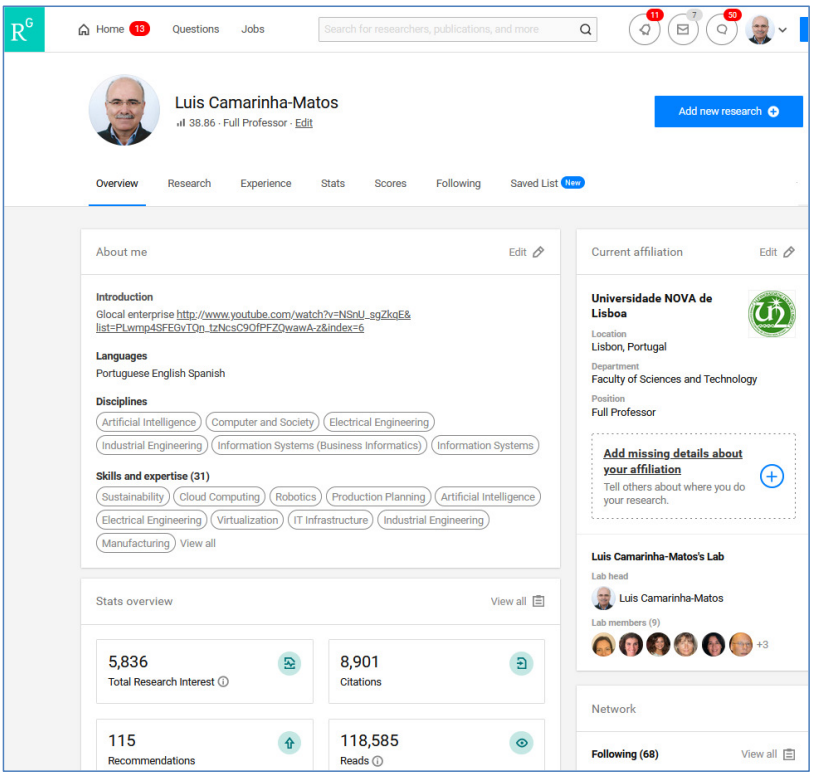
- Other specialized sources:
  Patents
  Standards

NEW:
The European Commission, in its H2020 research program, requires that publications generated as a result of funded projects shall be given open access!

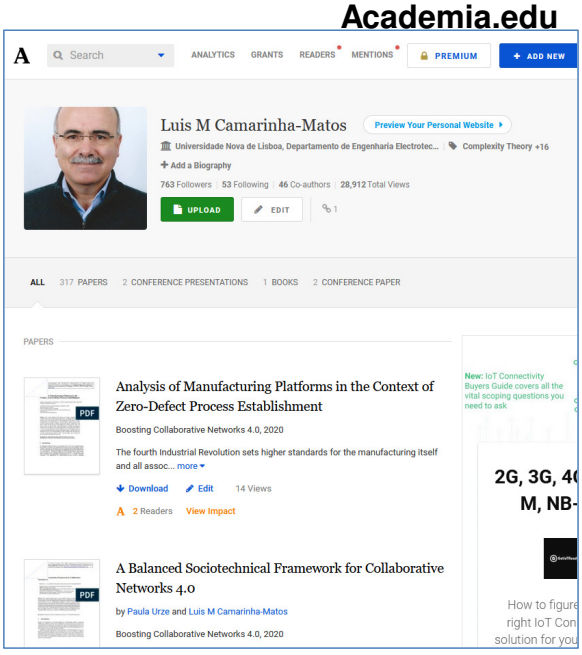
© L.M. Camarinha-Matos 2022

Online sources ...

Researchgate.net



Academia.edu



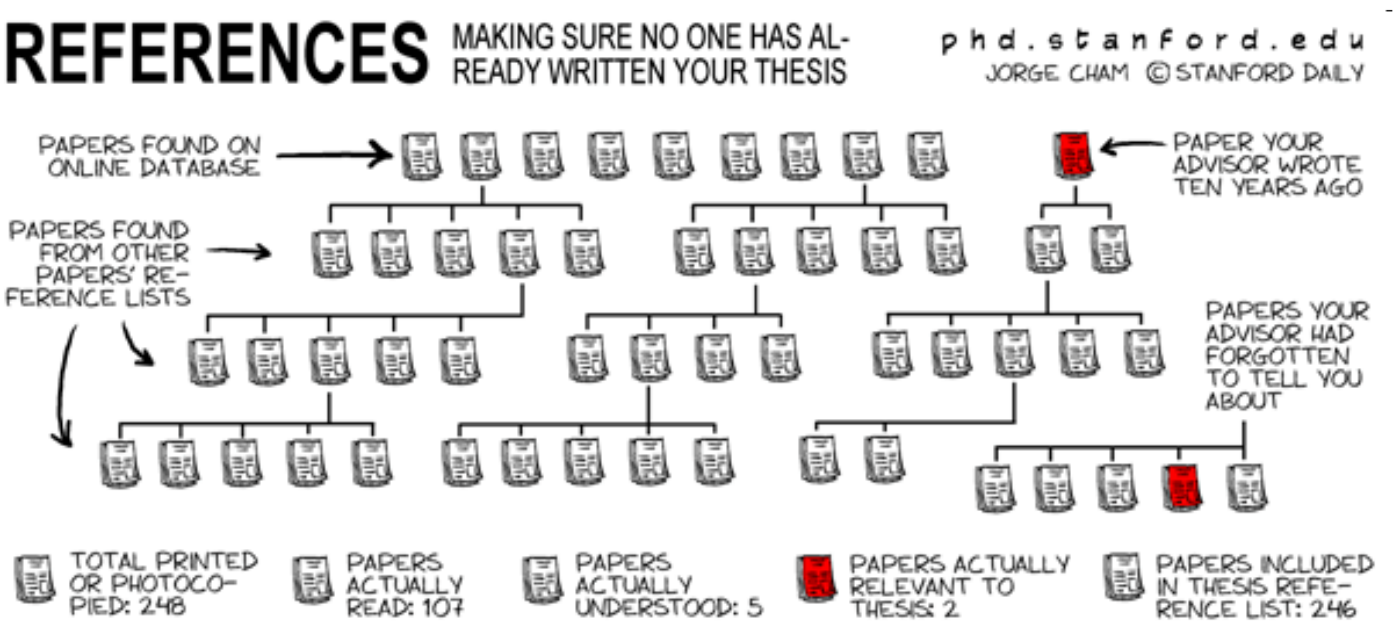
© L.M. Camarinha-Matos 2022

The issue of reliability

When making a literature survey …
… pay special attention to the reliability of the sources

- **Is it coming from a prestigious journal?**
- **Was it presented in a serious peer-reviewed conference?**
- **Are there other related references?**
  - **Is it from a recognized group?**
- **Use Wikipedia with caution**
  - **... A good starting point to get a general idea**
  - **... But then seek more reliable and identified sources**

© L.M. Camarinha-Matos 2022



© L.M. Camarinha-Matos 2022

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

The issue of completeness

You cannot guarantee that you checked ALL relevant papers ...

But it is very bad if you miss some major reference !

What to do (besides making exhaustive search):

- **Get some (initial) help from your supervisor (but remember, it is your responsibility !)**
- **Identify most relevant sources (journals, conferences) in your area and check them more carefully**
- **"Follow the references" ... i.e. Follow common references indicated by several of the papers you checked**

© L.M. Camarinha-Matos 2022

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

3. SYNTHESIS AND CRITICAL SPIRIT

© L.M. Camarinha-Matos 2022

10 steps in literature review

1. Identify a set of **keywords** (try also synonyms) to search via Google or specialized database.

2. If you are not yet very familiar with the subject, try to identify **first surveys** / **overviews** (or even books) that give a general overview of the topic. Then turn to journal articles and then to conference papers.

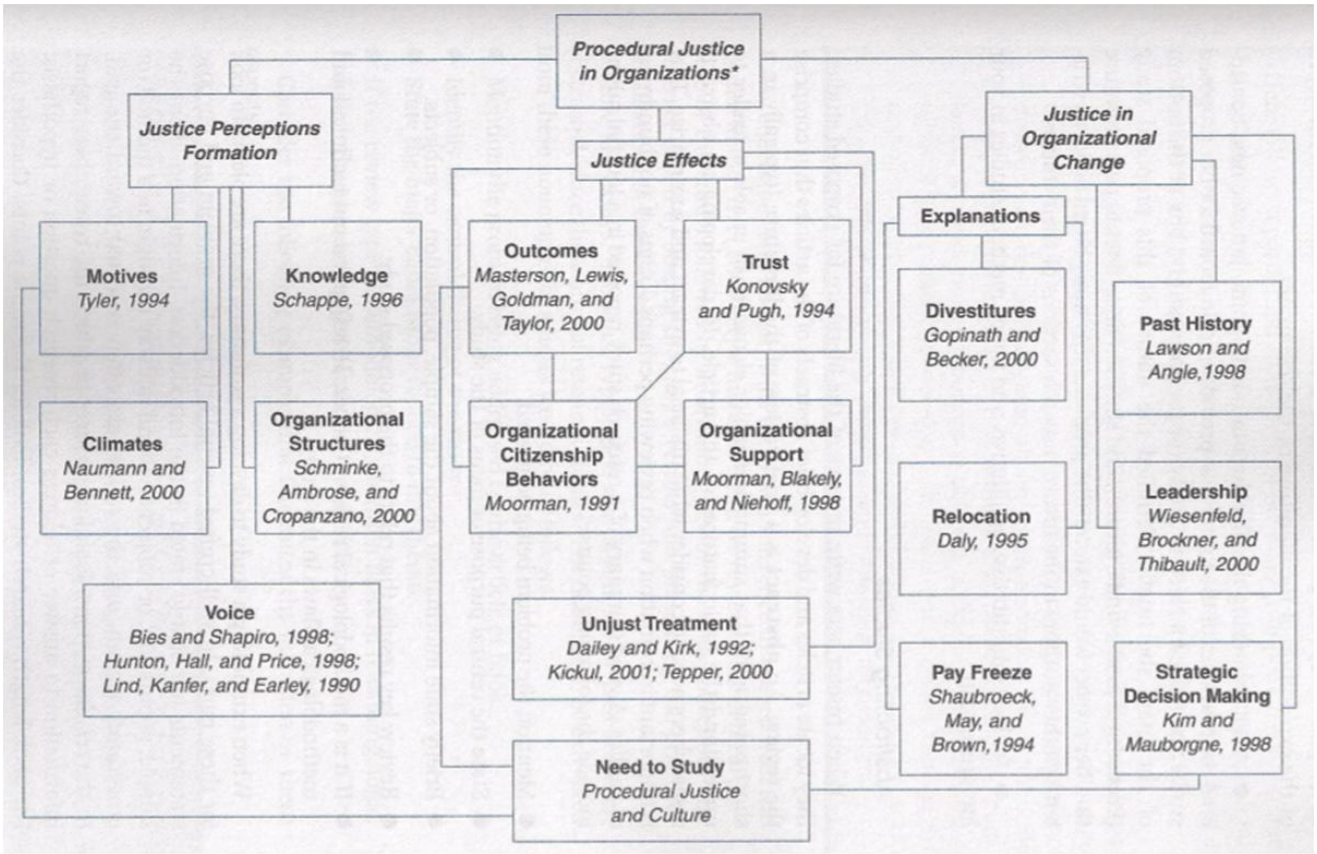
3. Try to select a set of 40 – 50 articles in order to help you get a **first view** of the topic.

4. Do a "**fast reading**" (without spending time with details) of these articles, just trying to filter what seems useful for your work or to give you a first global "picture".

5. Based on the useful literature, start elaborating a **literature map**, which gives you a visual picture of groupings of literature per sub-topic.

© L.M. Camarinha-Matos 2022

Example of literature map



Janovec, 2001]

© L.M. Camarinha-Matos 2022

10 steps in literature review ...

6. While organizing the map, prepare short summaries of the key ideas conveyed by each relevante article.
   ... Use Post-It
   ... Or Add annotations on the margins of the paper
   ... Or use some electronic means (in this case you can also start to organize a references database, e.g. Using Endnote).

7. Use the most relevant articles to find other relevant literature (following the references included in those articles). Try to identify relevant groups of researchers / authors ("schools of thought").

8. Diggest all collected ideas, concepts, findings (read the most relevant articles again, now in detail); try to organize and criticize them. For specific topics consult research reports, PhD thesis, etc.

9. Try to relate your work to the existing literature.

10. Plan a structure for the literature review synthesis; think of original ways of summarizing the ideas (what can be your added-value).

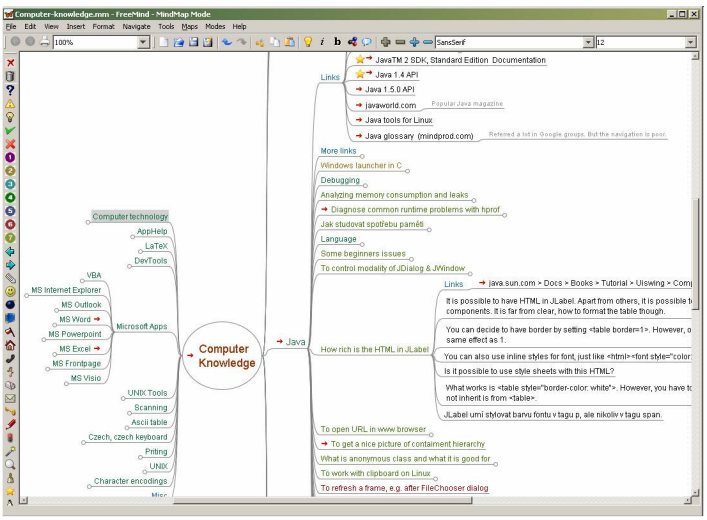
© L.M. Camarinha-Matos 2022

Mind Mapping tools

Perhaps one possibility to build literature maps ...

Examples:

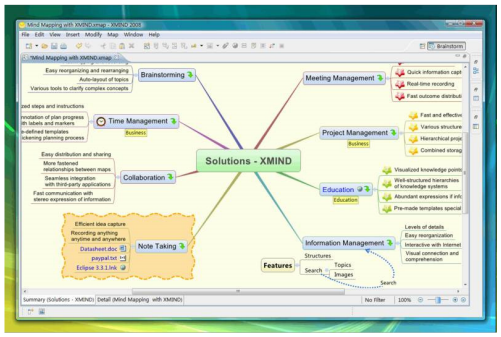
Freemind



http://freemind.sourceforge.net/wiki/index.php/Main_Page

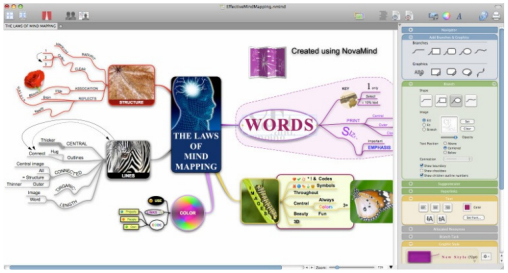
XMind

www.xmind.net/



NovaMind

www.novamind.com/



More:
http://en.wikipedia.org/wiki/List_of_Mind_Mapping_software

© L.M. Camarinha-Matos 2022

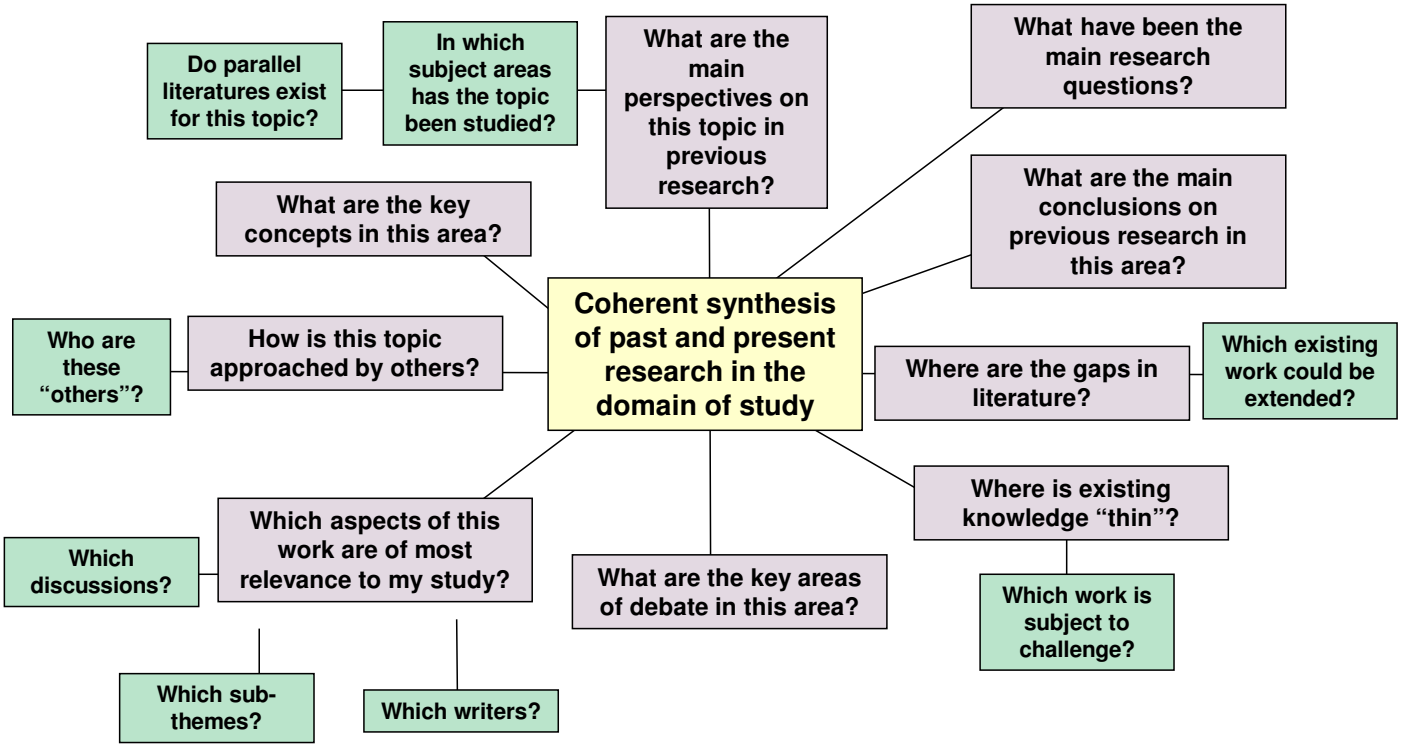
NOVA SCHOOL OF SCIENCE & TECHNOLOGY

www.wordle.net/create

© L.M. Camarinha-Matos 2022

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

Comprehensive Literature Review

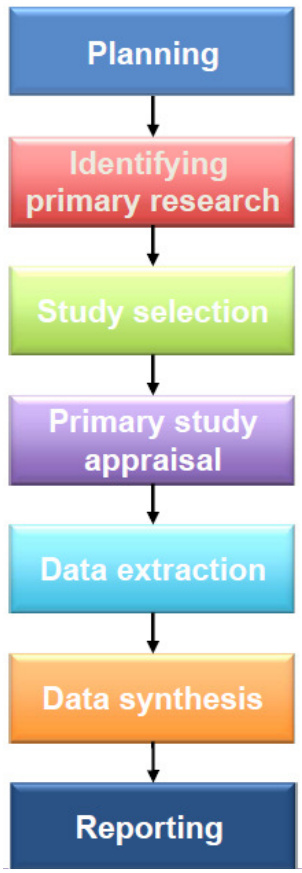


[Hall, 2009], Napier University

© L.M. Camarinha-Matos 2022

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

SLR: Systematic Literature Review

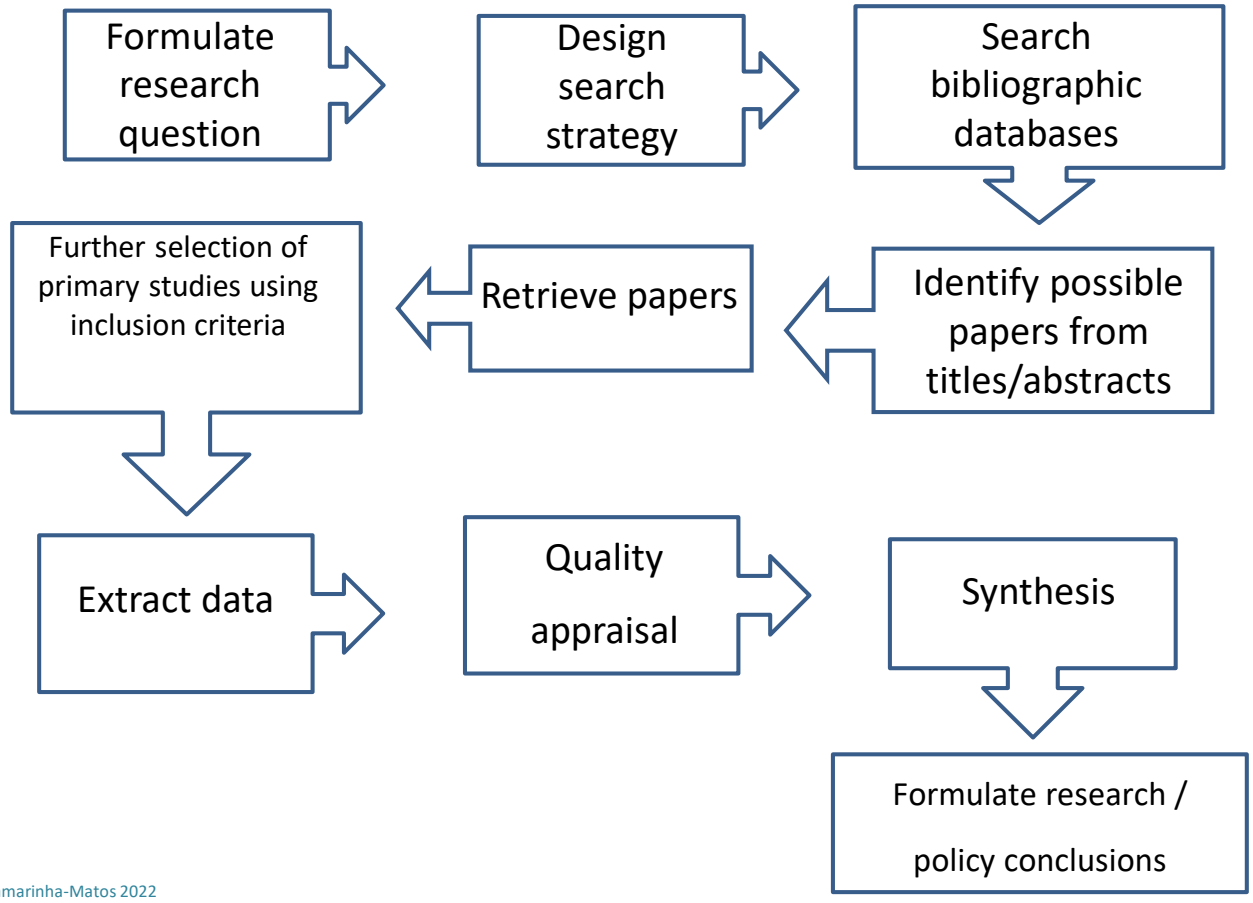


- Specifying the motivation and research question. Designing research strategy.
- Searching for primary studies based on predefined information sources, search terms and procedures.
- Selecting study based on predefined inclusion and exclusion criteria.
- Assessing the quality of primary studies.
- Extracting evidence based primary studies.
- Integrating and aggregating evidence.
- Assessing the quality of the SLR and synthesis. Packaging results.

© L.M. Camarinha-Matos 2022

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

SLR ...



© L.M. Camarinha-Matos 2022

Literature Review & your research evaluation

Towards the end of your dissertation [*or paper*] you will refer back to literature review

- Do your findings **confirm** those of others?
- Does your work **extend** that of others?
- Does your work **provide new meaning** to the work of others?
- Does your work **break new ground**?
- Does your work raise **issues about the methodological choices** made in previous studies?
- Does your work **challenge existing ideas** on your subject?

[Hall, 2009], Napier University

© L.M. Camarinha-Matos 2022

Some requirements for a PhD

" The capacity for a **systematic understanding** of his / her specialization area"

"Capacity to **analyze with a critical spirit**, to **evaluate**, and to **synthesize** new and complex ideas in a context of fast technological and socio-organizational change"

[Portuguese Law]

The literature review is one place to show these skills.

© L.M. Camarinha-Matos 2022

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

What a synthesis is not

- **Definitely not the result of "copy & paste" !**
  - **Plagiarism**
  - **Even if properly referenced, what is the relevance?**
  - **Copying sentences and making small changes is not acceptable**
- **Not a simple (weakly linked) concatenation of excerpts from others !!!**

  "Author X said bla bla.... On the other hand, Y defends that bla bla ...
  Furthermore Z introduced bla bla .... and W agrees with ...."
- **Not a pedagogic text book !**
  - **Who is your reader?**
  - **What is his / her background?**
  - **What does he / she expect?**

What is the relationship to your work?

What is your added value?

© L.M. Camarinha-Matos 2022

NOVA SCHOOL OF SCIENCE & TECHNOLOGY

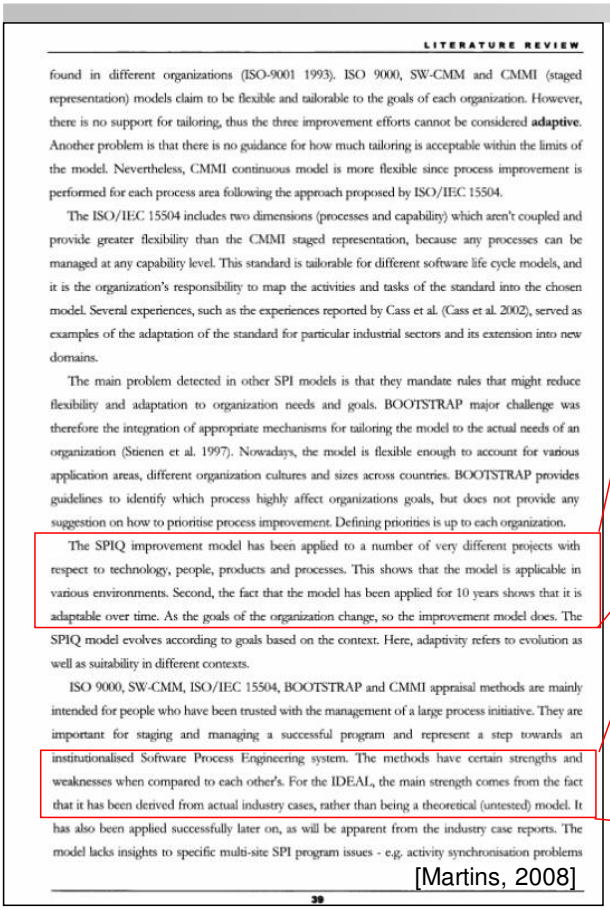
Interesting features in a synthesis

It shall:

- **Integrate a set of ideas that were previously dispersed and turn them into a coherent framework**
- **Clarify concepts that were only partially present in other works**
- **Introduce a new / original (fresh) look into the subject**
- **Show a critical perspective and some "personal touch" (how you see the current state of the art)**
- **Identify gaps / unsolved issues**
- **Be synthetic !**
  - Use synthetic representations – graphics, diagrams, tables, etc
  - Focus on the essential (namely what is relevant for your work)
  - But at the same time try to give a broad perspective in order to properly "locate" your work

© L.M. Camarinha-Matos 2022

Examples



LITERATURE REVIEW

found in different organizations (ISO-9001 1993). ISO 9000, SW-CMM and CMMI (staged representation) models claim to be flexible and tailorable to the goals of each organization. However, there is no support for tailoring, thus the three improvement efforts cannot be considered **adaptive**. Another problem is that there is no guidance for how much tailoring is acceptable within the limits of the model. Nevertheless, CMMI continuous model is more flexible since process improvement is performed for each process area following the approach proposed by ISO/IEC 15504.

The ISO/IEC 15504 includes two dimensions (processes and capability) which aren't coupled and provide greater flexibility than the CMMI staged representation, because any processes can be managed at any capability level. This standard is tailorable for different software life cycle models, and it is the organization's responsibility to map the activities and tasks of the standard into the chosen model. Several experiences, such as the experiences reported by Cass et al. (Cass et al. 2002), served as examples of the adaptation of the standard for particular industrial sectors and its extension into new domains.

The main problem detected in other SPI models is that they mandate rules that might reduce flexibility and adaptation to organization needs and goals. BOOTSTRAP major challenge was therefore the integration of appropriate mechanisms for tailoring the model to the actual needs of an organization (Stienen et al. 1997). Nowadays, the model is flexible enough to account for various application areas, different organization cultures and sizes across countries. BOOTSTRAP provides guidelines to identify which process highly affect organizations goals, but does not provide any suggestion on how to prioritise process improvement. Defining priorities is up to each organization.

The SPIQ improvement model has been applied to a number of very different projects with respect to technology, people, products and processes. This shows that the model is applicable in various environments. Second, the fact that the model has been applied for 10 years shows that it is adaptable over time. As the goals of the organization change, so the improvement model does. The SPIQ model evolves according to goals based on the context. Here, adaptivity refers to evolution as well as suitability in different contexts.

ISO 9000, SW-CMM, ISO/IEC 15504, BOOTSTRAP and CMMI appraisal methods are mainly intended for people who have been trusted with the management of a large process initiative. They are important for staging and managing a successful program and represent a step towards an institutionalised Software Process Engineering system. The methods have certain strengths and weaknesses when compared to each other's. For the IDEAL, the main strength comes from the fact that it has been derived from actual industry cases, rather than being a theoretical (untested) model. It has also been applied successfully later on, as will be apparent from the industry case reports. The model lacks insights to specific multi-site SPI program issues - e.g. activity synchronisation problems

[Martins, 2008]

30

Using critical spirit ...
Discussing ...
Giving opinion ...

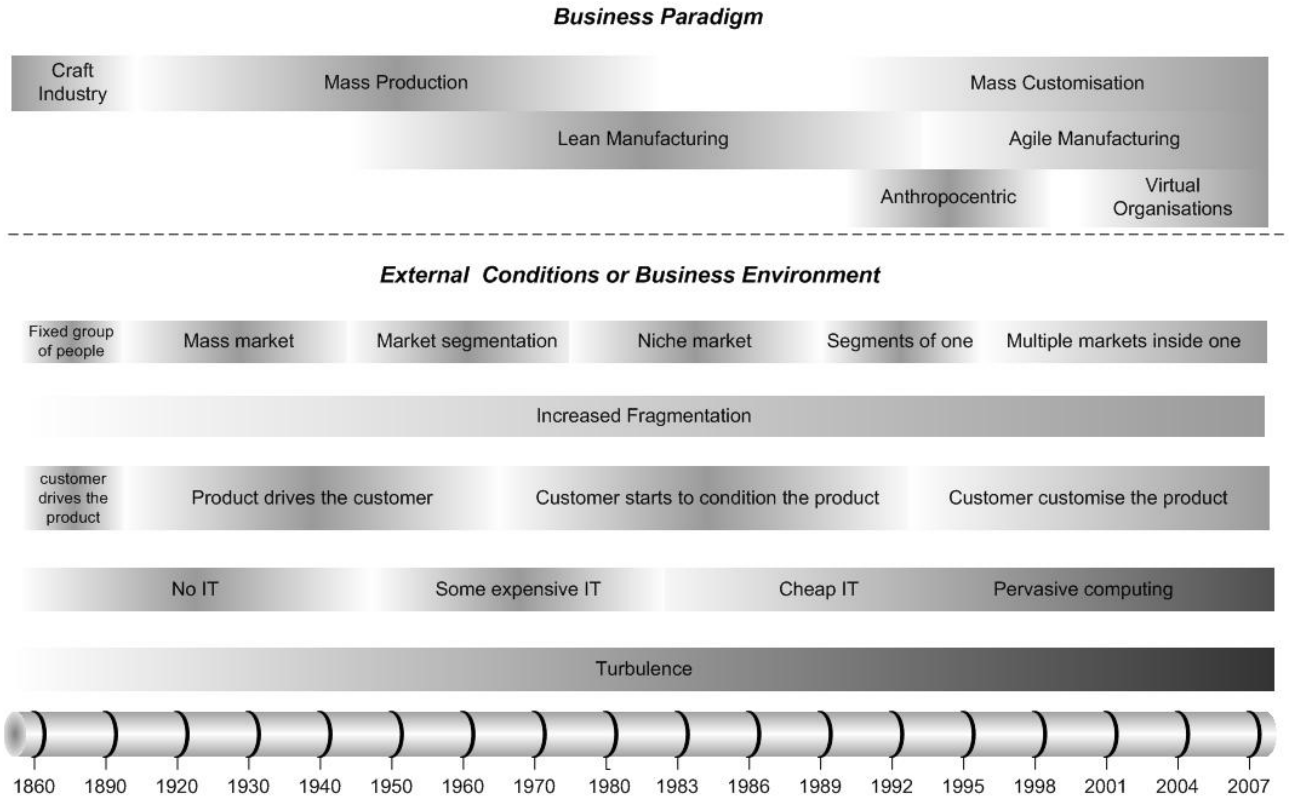
The SPIQ improvement model has been applied to a number of very different projects with respect to technology, people, products and processes. This shows that the model is applicable in various environments. Second, the fact that the model has been applied for 10 years shows that it is adaptable over time.

The methods have certain strengths and weaknesses when compared to each other's. For the IDEAL, the main strength comes from the fact that it has been derived from actual industry cases, ...

© L.M. Camarinha-Matos 2022

Examples ...

[Manufacturing trends - business environment]

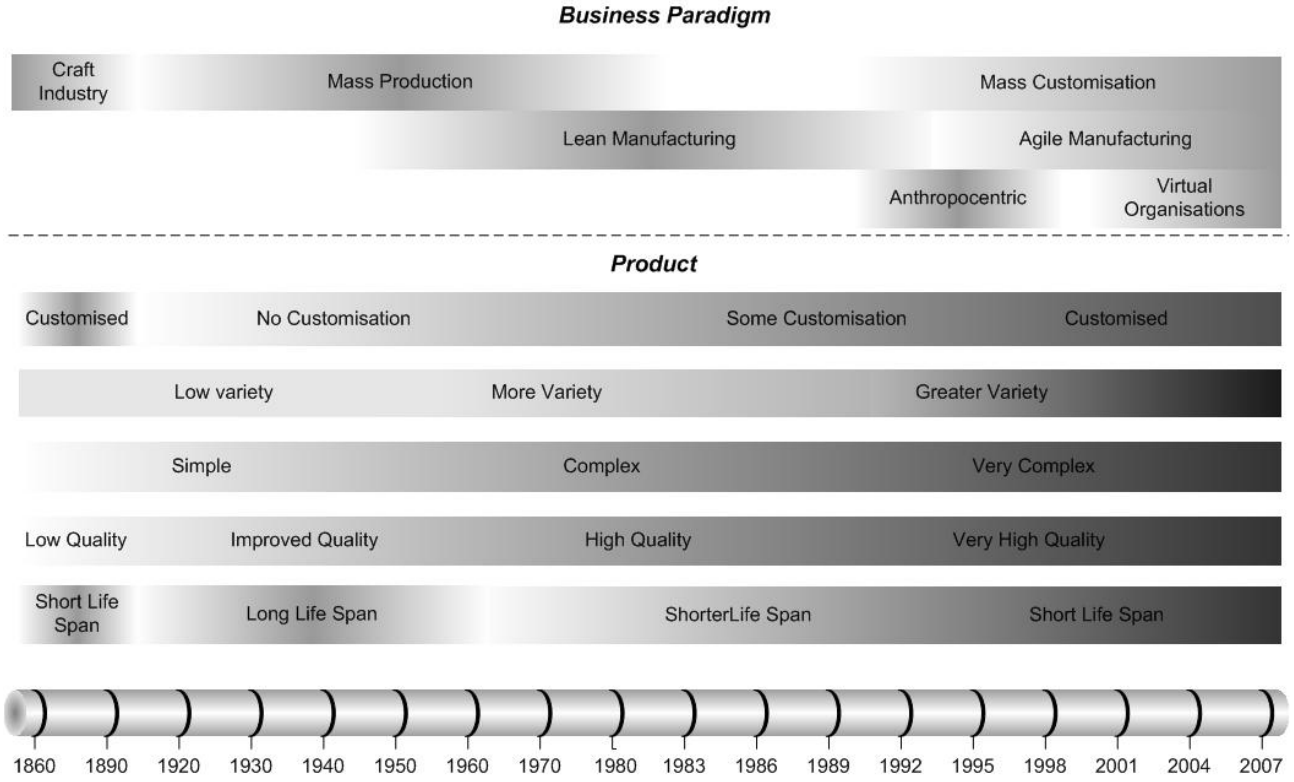


[Barata, 2003]

© L.M. Camarinha-Matos 2022

Examples ...

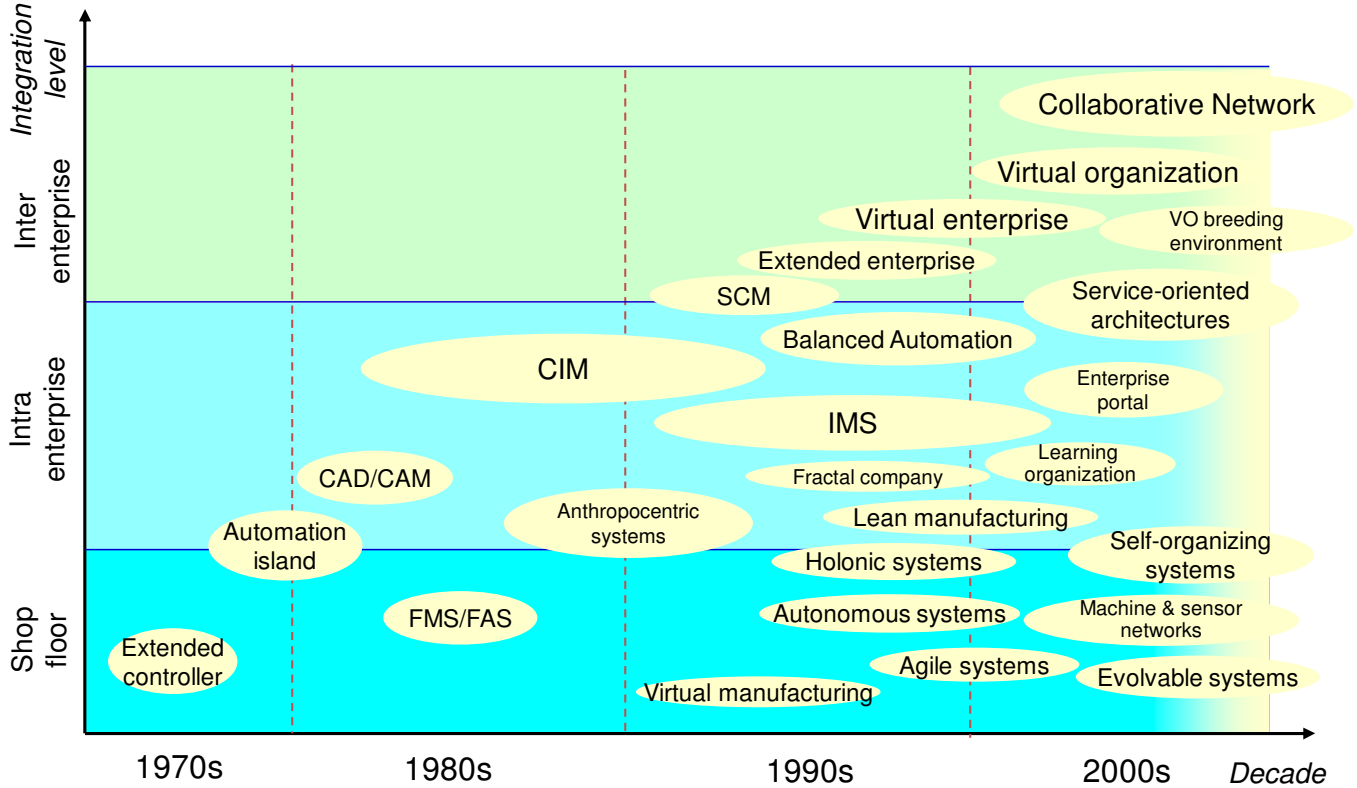
[Manufacturing trends – product conditions]



© L.M. Camarinha-Matos 2022

[Barata, 2003]

Examples ...



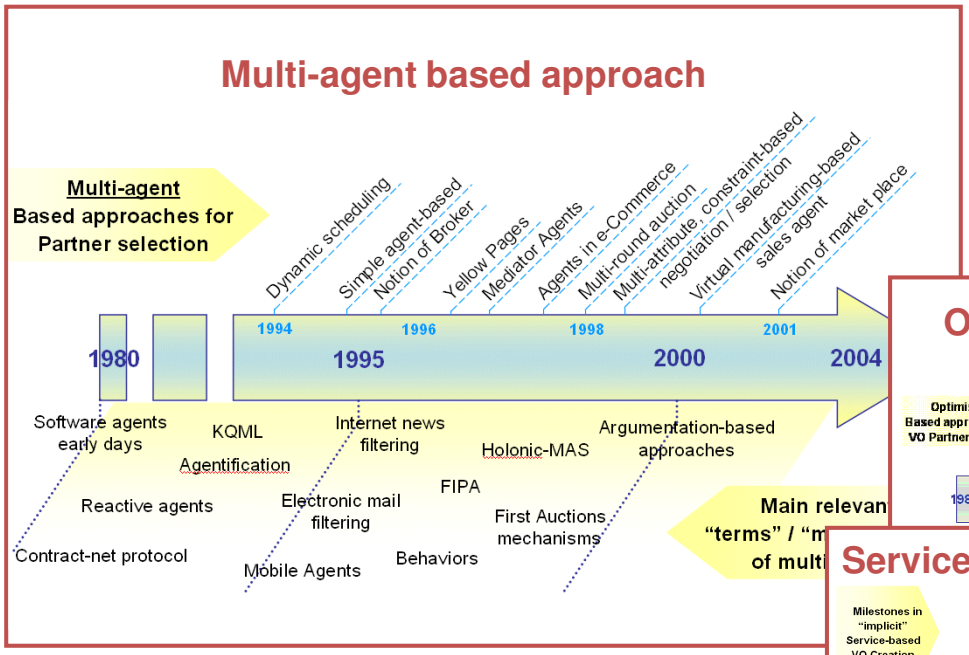
A brief historic evolution in manufacturing systems

© L.M. Camarinha-Matos 2022

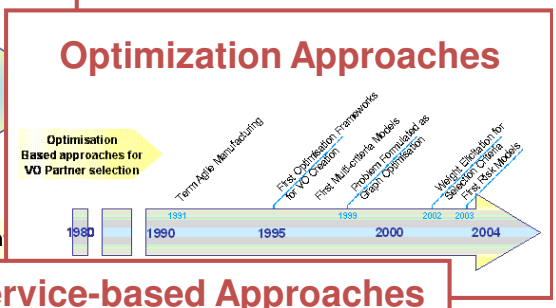
[Camarinha-Matos, 2008]

Examples ...

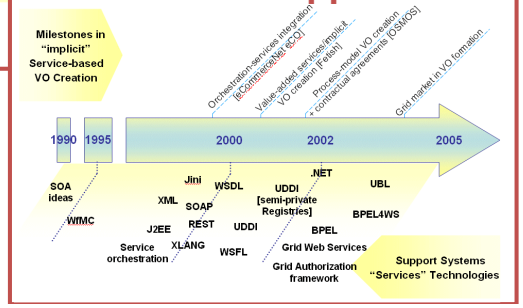
Multi-agent based approach



Optimization Approaches



Service-based Approaches



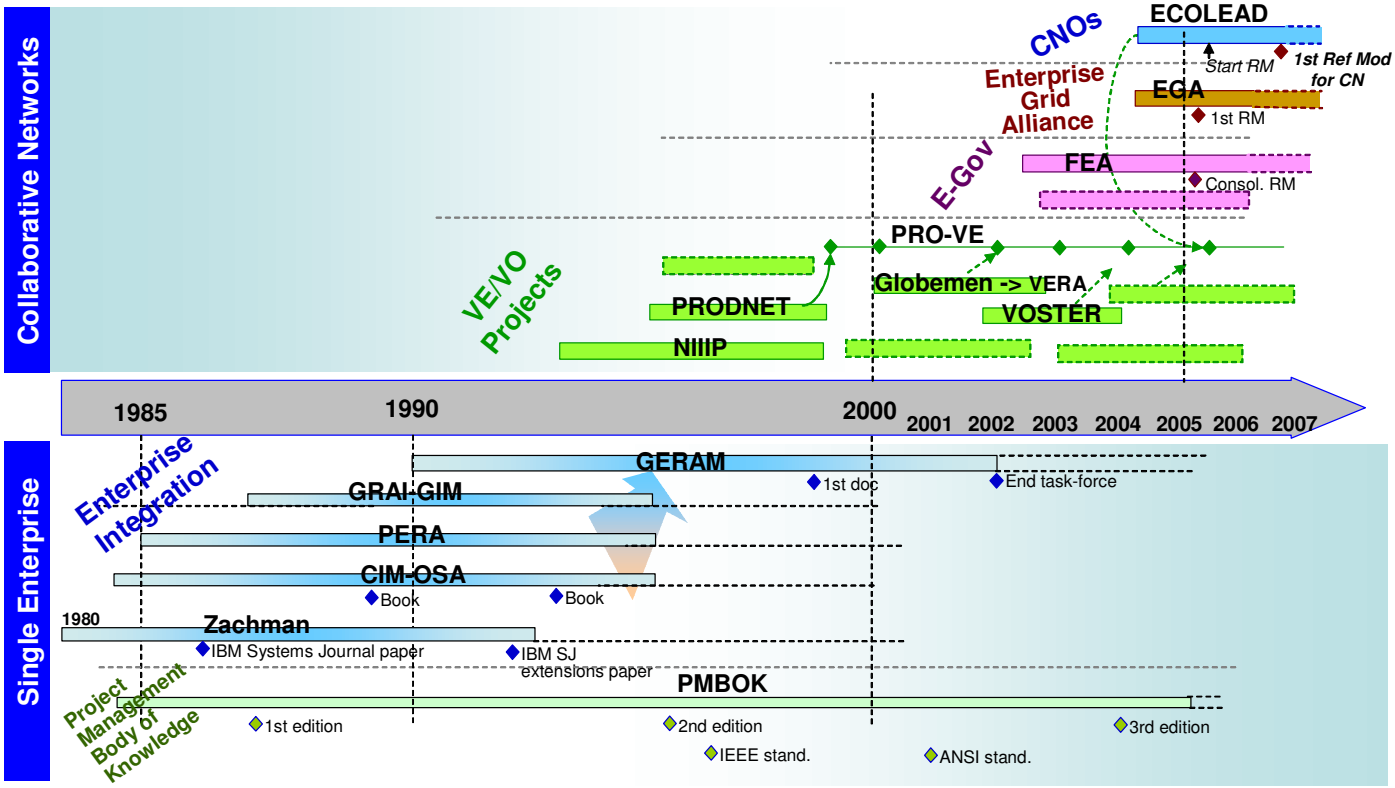
Approaches in consortia formation

Main relevan
"terms" / "m
of multi

© L.M. Camarinha-Matos 2022

Examples ...

Efforts in reference modelling



[Camarinha-Matos, Afsarmanesh, 2008]

© L.M. Camarinha-Matos 2022

Examples …

Tables summarizing the main ideas / trends.

These tables can include references or be accompanied by a short text where the references appear.

Focus area: ICT Infrastructures		
Current issues and results	***Example projects***	***Further challenges***
Service Oriented Architecture (SOA) orientation established as the main approach for integration of distributed services	ECOLEAD ITSIBus ATHENA INPREX	▪ In spite of the growing importance of SOA approaches, there is a need for better standardization and design methodologies. Other aspects include: Services' semantic annotation (focused on collaboration), dynamic ("on the fly") service combination, intelligent planning, search, and integration of services, soft matching methods, etc. ▪ Sustainable business models for the infrastructures (one of the main current obstacles for the development of the area). ▪ Absorption of emerging computing paradigms. ▪ Grid computing has been trying to be a kind of "bandwagon" that collects / integrates ideas from other areas but still offers a limited conceptualization of VO and corresponding business model. Nevertheless it includes some potentially useful mechanisms for resource management and a collaboration between the two communities could be useful. ▪ As the area of mobile computing, WiMax, new mobile devices and infrastructures is developing, it is necessary to identify / create new opportunities for new pervasive collaborative environments. ▪ RFID (radio frequency identification) may enable better real-time management in production and logistic networks for which a holistic approach is needed. ▪ The Multi-Agent Systems area continues to be promising from a conceptual perspective but there is a need for more robustness in development environments for widely distributed systems.
Security infrastructures including: - Basic security mechanisms - Authentication mechanisms - Responsibility policies	ECOLEAD TRUSTCOM DyVOSE	
Distributed workflow / business process modeling and execution engines	WIDE CrossFlow	
Distributed information exchange and sharing mechanisms: - Federated systems - Standards for information exchange - Web-based document management systems	PRODNET II MASSYVE	
Interoperability principles and approaches for integration of legacy systems	ATHENA ITSIBus INTEROP ECOLEAD	
Base collaboration services: - CSCW - Document management - Forum, chat, billing, etc.	ECOLEAD	
Agent-based approaches: - Agent-based enterprise modeling - Agent-based infrastructures - Agent-based simulation - Mobile agent infrastructures	TeleCARE, SteelNet Global Automation Platform	

[Camarinha-Matos, 2007]

However other characteristics have been highlighted on different studies and are summarised next (Table 2.1).

Characteristics	Description	References
Coordination	How business processes are synchronized and managed to achieve the business goals. In terms of network coordination various models can be found: 1) Star-like structure - a dominant company "surrounded" by a relatively fixed network of suppliers. 2) Democratic alliance - a different organization could be found in some supply chains without a dominant company in which all nodes cooperate on an equal basis, keeping their autonomy, but joining their core competencies. 3) Federation - once a successful alliance is formed, companies may realize the mutual benefits of having some common management of resources and skills and they may tend to create a kind of common coordination structure.	(Camarinha et al., 1997), (Boudreau et al., 1998)
Duration	There are alliances made for a single business opportunity and which are dissolved at the end of such process, and long term alliances that last for an indefinite number of business processes or for a unspecified time span.	(Camarinha et al., 1997)
Flexibility	Resources can be easily reassigned to respond to shifting opportunities in global markets.	(Boudreau et al., 1998), (Martinez et al., 2001)
Heterogeneity	Components with different profiles in regard to their strength and competencies.	(Wigand et al., 1997)
Modularity	Relatively small but manageable units with decentralised decision-making competencies and responsibilities.	(Wigand et al., 1997)
Purpose	The objective of creating or joining a virtual organization. For instance, is it to extend its boundaries and still keeping control over its vital suppliers (for instance, in terms of quality control) or is it to complement its core competencies in order to be able to share some market opportunities? Instead of just bidding for a single opportunity in the market, is it to be involved in a consistent supply chain, from the raw materials to the end customers? Is it to increase the geographical presence or to improve the quality and responsiveness to the market opportunities?	(Camarinha et al., 1997)

[Nunes, 2005]

© L.M. Camarinha-Matos 2022

Where to include it? – case of papers

Case 1:

Paper Title
Authors
Afillition

Abstract

1. Introduction
2. **Literature review**
3. Contribution A
4. Contribution B
5. …
6. Conclusions
7. References

This approach is used in those works that employ a strong theory / literature background on which the work is rooted on

Case 2:

Paper Title
Authors
Afillition

Abstract

1. Introduction
2. Contribution A
3. Contribution B
4. …
5. **Related work**
6. Conclusions
7. References

This approach is used when the idea is to provide a basis for comparing and contrasting findings of the work

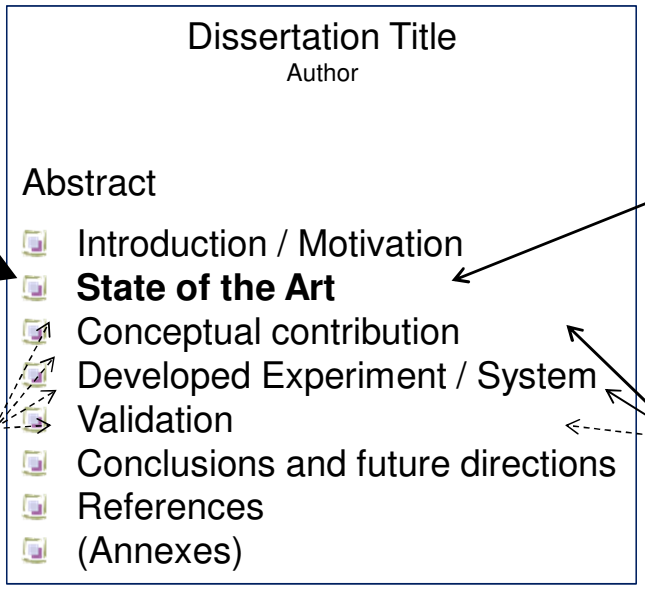
© L.M. Camarinha-Matos 2022

Where to include it? – case of dissertation

Case 1
(The most common)

A strong literature review / state of the art section after the introduction (1 or more chapters)

Sporadic references can also be made along the text.



Case 2

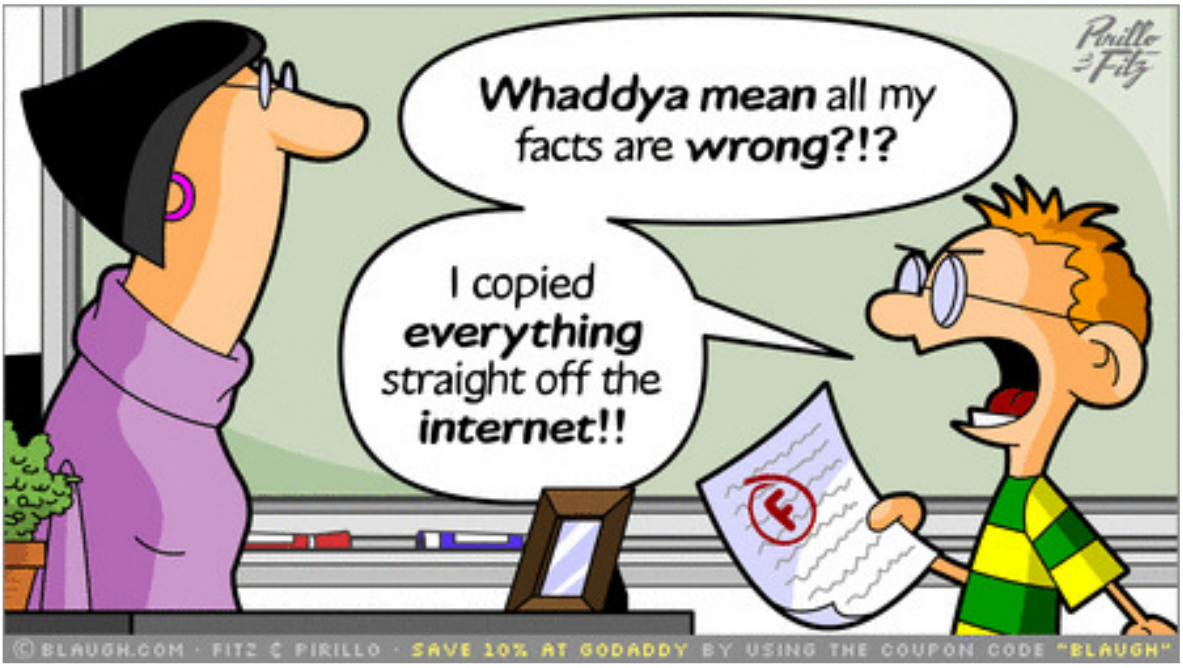
A shorter literature review / state of the art section after the introduction (1 short chapter) followed by...

Distributed sections of state of the art on different topics along the text (namely when the work involves several topics)

© L.M. Camarinha-Matos 2022

4. OTHER PRACTICAL ASPECTS

© L.M. Camarinha-Matos 2022



© L.M. Camarinha-Matos 2022

Referencing styles

There are several referencing styles available

Examples:

- **APA style**
- **MLA style**
- **Harvard style**
- **Chicago style**

http://www.citethisforme.com/guides
https://pitt.libguides.com/citationhelp

Conferences and journals usually provide their own style !

© L.M. Camarinha-Matos 2022

Referencing styles ...

A frequent case:

WORK BY ONE AUTHOR:
The most recent study...(Author, 1995) suggests that....

WHEN THE AUTHOR'S NAME IS PART OF THE SENTENCE:
In Author's (1993) study of....

WORK BY TWO AUTHORS:
Other researchers (Author1 and Author2, 1981) have suggested....

WORK BY THREE OR MORE AUTHORS:
White-lined bark beetles...(Author1 et al., 1992).

MULTIPLE WORKS BY THE SAME AUTHOR:
The circulatory system...has been described...by Author (1978, 1980, 1983).

MULTIPLE WORKS BY DIFFERENT AUTHORS:
Many different models have been proposed...(Author1, 1977, 1979; Author2, 1988; Author3, 1992).

References are then listed alphabetically

Another case:

References in brackets - [4], [12]

In the end, references are listed according to the order of referencing in the text

© L.M. Camarinha-Matos 2022

Information and communication technologies (ICT), and particularly high-speed pervasive broadband connectivity, Internet of Things, cloud-computing and web-based technologies, offer promising opportunities to provide care and assistance, as well as new ways of working, facilitate social interaction and reduce limitations imposed by location and time. During last decade, many research projects and pilot experiments have focused on ICT and ageing (see, for instance, Aguilar et al. 2004; Camarinha-Matos, Rosas, and Oliveira 2004; Alexandersson 2008; D'Andrea et al. 2009; Costa et al. 2009; Vontas, Protogeros, and Moumtzi 2009; O'Grady et al. 2010). But many of the resulting ideas and promising pilot cases, even if with a high potential, fail to scale because the adopted approaches have been excessively techno-centric. In this area, a purely technology centred approach, without consideration of the socio-organisational aspects, is likely to add only marginal value, not getting accepted by users, or not finding a sustainable business approach for wider deployment. Therefore, while designing a new conceptual architecture for an ICT and Ageing support environment, it is fundamental to also address the need for organisational and cultural change.

On the other hand, the frequent association of senior citizens with a dependent stage of life does no longer (fully) match the reality. The adoption of the concept of 'active ageing' provides a more appropriate understanding of the later phases of life (USDHHS 1997). Furthermore, the notion of 'productive ageing' (Garlick and Soar 2007) has opened new perspectives for a change in the way society often perceives older people. Thus, supporting the active ageing process is not only about creating

...009. Modeling and ...on of Collaborative ...red Systems I, LNCS 5740, 1–37. Berlin: Springer.

Aguilar, J. M., J. Cantos, G. Exposito, and P. Gómez. 2004. "The Improvement of the Quality of Life for Elderly and Relatives through Two Tele-Assistance Services: The TeleCARE Approach." In *Proceedings of TELECARE 2004 Workshop – Tele-Care and Collaborative Virtual Communities*, 73–85. Porto: INSTICC Press.

Alexandersson, J. 2008. "I2home: Towards a Universal Home Environment for Elderly and Disabled." *German Journal on Artificial Intelligence* 3 (8): 66–68.

Antunes, V., and J. P. Moreira. 2011. "Approaches to Developing Integrated Care in Europe: A Systematic Literature Review." *Journal of Management & Marketing in Healthcare* 4 (2): 129–135.

Atallah, L., B. Lo, G. Z. Yang, and F. Siegemund. 2008. "Wirelessly Accessible Sensor Populations (WASP) for Elderly Care Monitoring." In *Proceedings of the Workshop on Ambient Technologies for Diagnosing and Monitoring Chronic Patients*, Part of *Pervasive Health 2008*, Tampere, January.

Bitner, M. J., and S. W. Brown. 2006. "The Evolution and Discovery of Services Science in Business Schools." *Communications of the ACM* 49 (7): 35–40.

Budinich, V. 2012. "Ashoka's Hybrid Value Chain: Revving the Engine of Sustained Global Prosperity and Social Value. The Harvard Business Review/McKinsey M-Prize for Management Innovation: HBR/McKinsey M-Prize: Long-Term Capitalism Challenge." Accessed May 17, 2012. http://www.mixhackathon.com/story/ashoka%E2%80%99s-hybrid-value-chain-revving-engine-sustained-global-prosperity-and-social-value

Budinich, V., K. M. Reott, and S. Schmidt. 2007. "Hybrid Value Chains: Social Innovations and the Development of the Small Farmer Irrigation Market in Mexico." In *Business Solutions for the Global Poor: Creating Social and Economic Value*, edited by V. Kasturi Rangan, J. A. Quelch, G. Herrero, and B. Barton. San Francisco, CA: Jossey-Bass.

Camarinha-Matos, L. M., and H. Afsarmanesh. 2008. "On Reference Models for Collaborative Networked Organizations." *International Journal Production Research* 46 (9): 2453–2469.

© L.M. Camarinha-Matos 2022

Organization of references

In case there are prescribed rules, follow them !

Additional tips:

- **The list of given references is closely tied to the literature review / state of the art section of the thesis / paper.**
  - **Most examiners / reviewers scan your list of references looking for the important works in the field, so make sure they are listed and referred to.**
    - Most examiners / reviewers, being experts with publications in the field, also look for their own publications … so, if they are in the topic area of your work list these too.
    - When submitting to a journal ... editors also like to have citations to papers published by that journal (in order to increase their impact factor)!
  - **How old / recent are the references?**
- **All given references *must* be referred to in the main body of the thesis or paper.**
- **Organize the list of references either alphabetically by author surname (preferred), or by order of citation in the text (if no other rules are imposed).**
- **Although not so common, some thesis include the references at the end of each chapter (and not at the end of the thesis)**

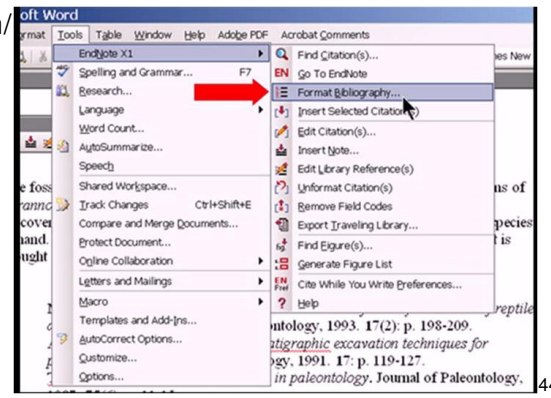
© L.M. Camarinha-Matos 2022

Tools

PAY ATTENTION:
If you use one of these tools,
please LEARN how to use it!
Often people misuse them ….

Some tools:

- **EndNote** — www.endnote.com
  www.library.american.edu/Help/tutorials/endnote/index.html
- **ReferenceManager** — www.refman.com/
- **ProCite** — www.procite.com
- **Biblioscape** — www.biblioscape.com/biblioscape.htm
- **Bibliographix** — http://home.mybibliographix.com/
- **Mendeley** — https://www.mendeley.com/



Lists of free tools:

http://mahbub.wordpress.com/2007/03/04/comparison-of-free-bibliographic-managers/

http://en.wikipedia.org/wiki/Comparison_of_reference_management_software

© L.M. Camarinha-Matos 2022

Do not underestimate the needed effort !

© L.M. Camarinha-Matos 2022

Further reading

http://www.deakin.edu.au/library/findout/research/litrev.php

https://student.unsw.edu.au/getting-started-your-literature-review

http://www.slideshare.net/engCETL/writing-a-literature-review-handout

On SLR:

http://www.inf.ufsc.br/~awangenh/kitchenham.pdf

http://userpages.uni-koblenz.de/~laemmel/esecourse/slides/slr.pdf

http://www.cin.ufpe.br/~in1037/leitura/Kitchenham%202010%20-%20tertiary%20study.pdf

© L.M. Camarinha-Matos 2022