

Graduate School of Management
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Big Data Structuring: The Role of Visual Models and Ontologies

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Why ontologies?

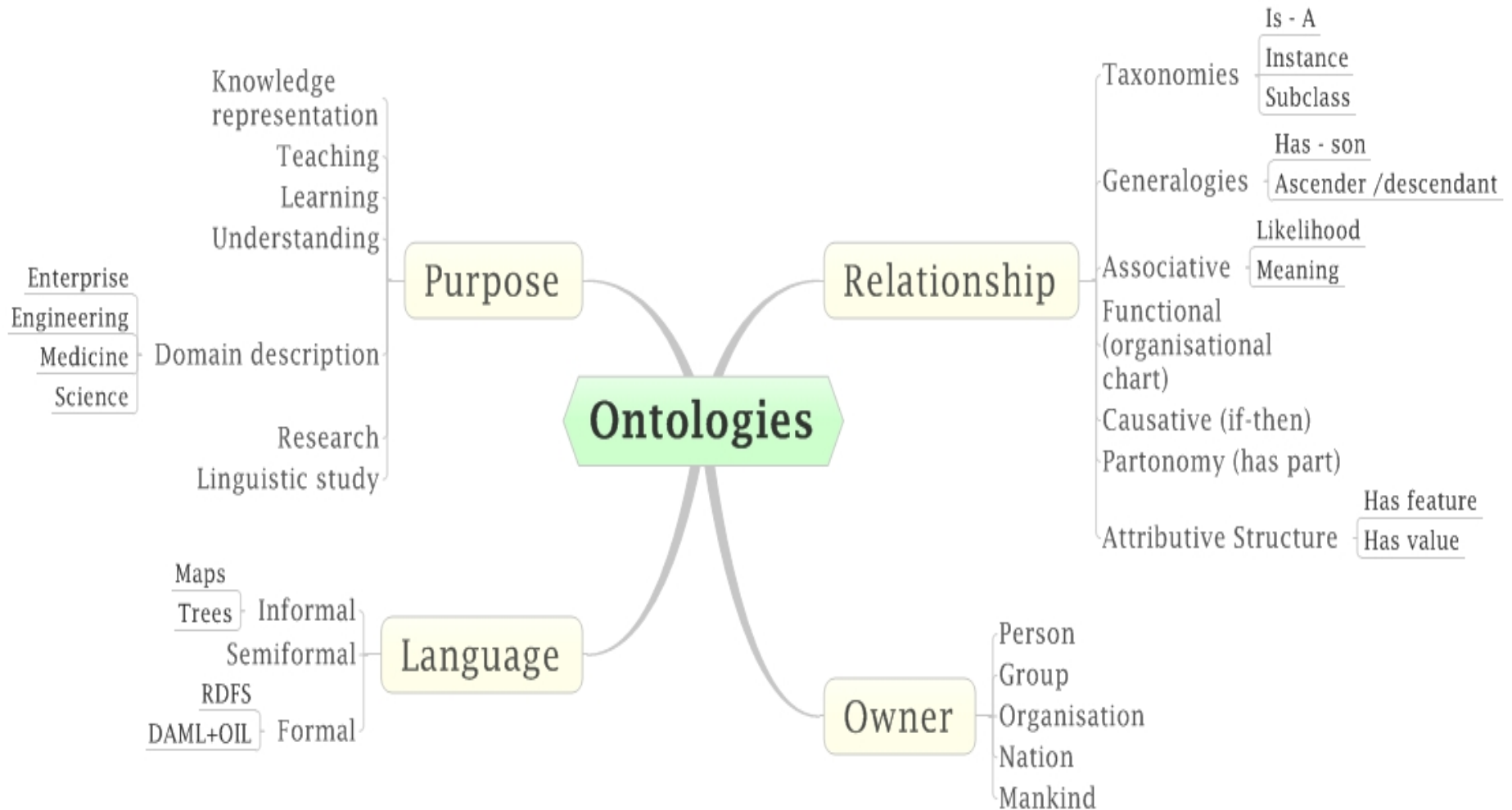


- Visual structuring of information
- Deeper comprehension
- Better information sharing

What is ontology?

- Ontology is a set of distinctions we make in understanding and viewing the world.
- Knowledge structuring while giving enough freedom to open-ended, creative thinking.
- Ontologies - one of the most universal and sharable forms of conceptual modeling

Ontology classification



How to build ontologies?

- Goals, strategy, and boundary identification
Glossary development or meta-concept identification
- Laddering, including categorization and specification
- Orchestration

Rules of orchestration

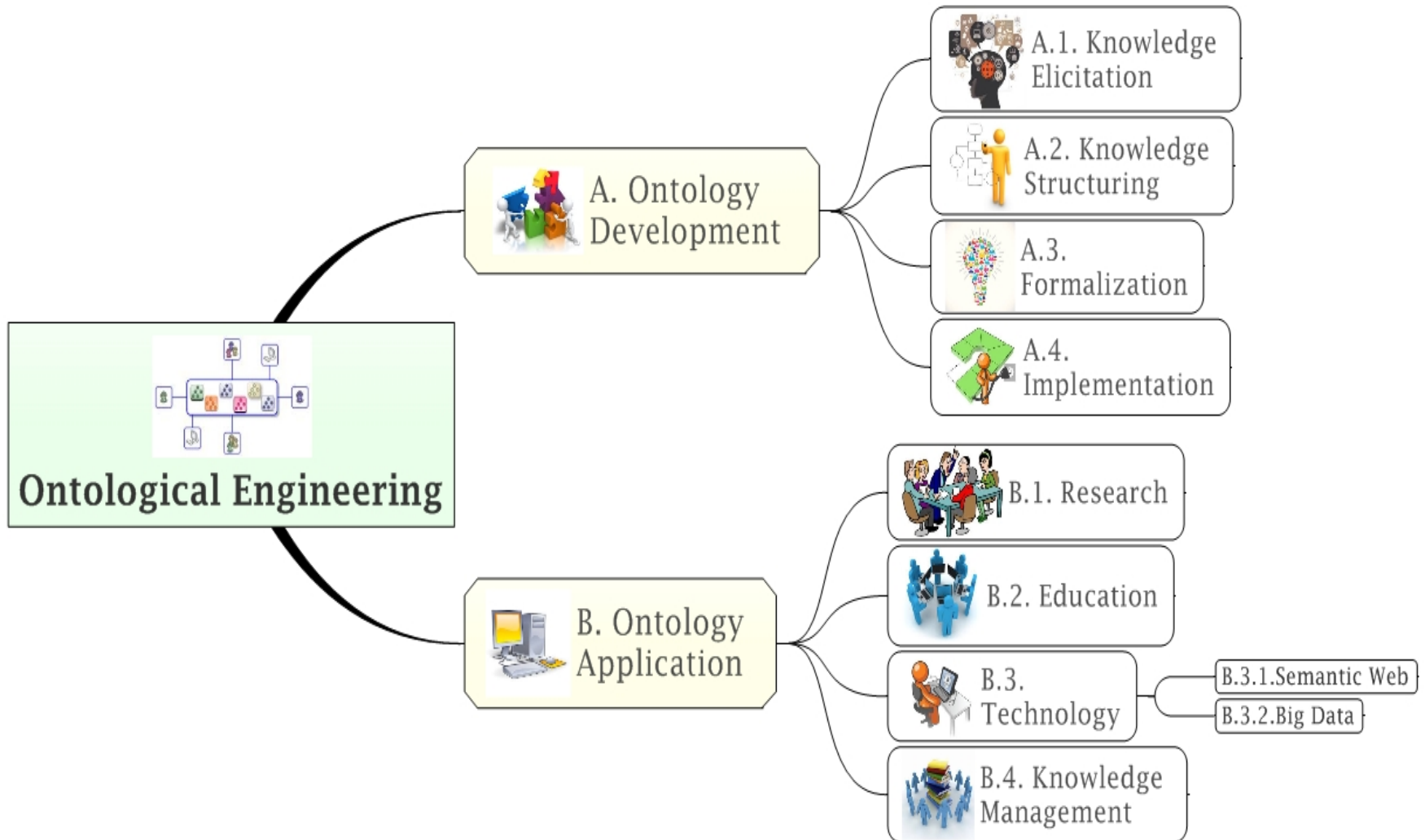
- *Law of Pragnanz (the law of good shape)*
- *Law of Parsimony (the Ockham's razor principle)*

Simple rules to remember

The idea of “harmony” in ontologies:

- Concepts of one level should be linked to their parent concept by one type of relationships
- The ontology tree should be balanced
- Cross-links should be avoided as much as possible.

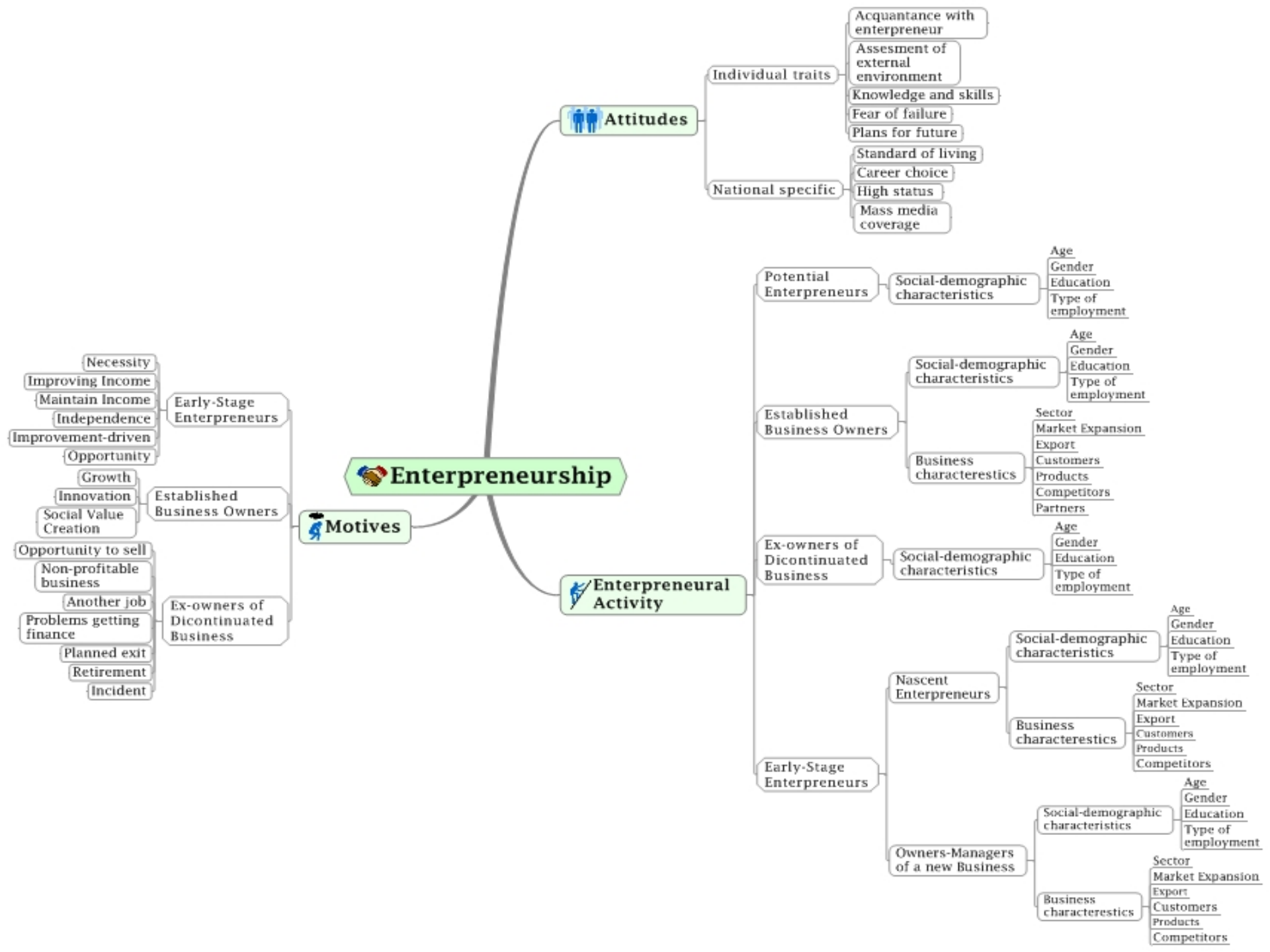
Ontological engineering

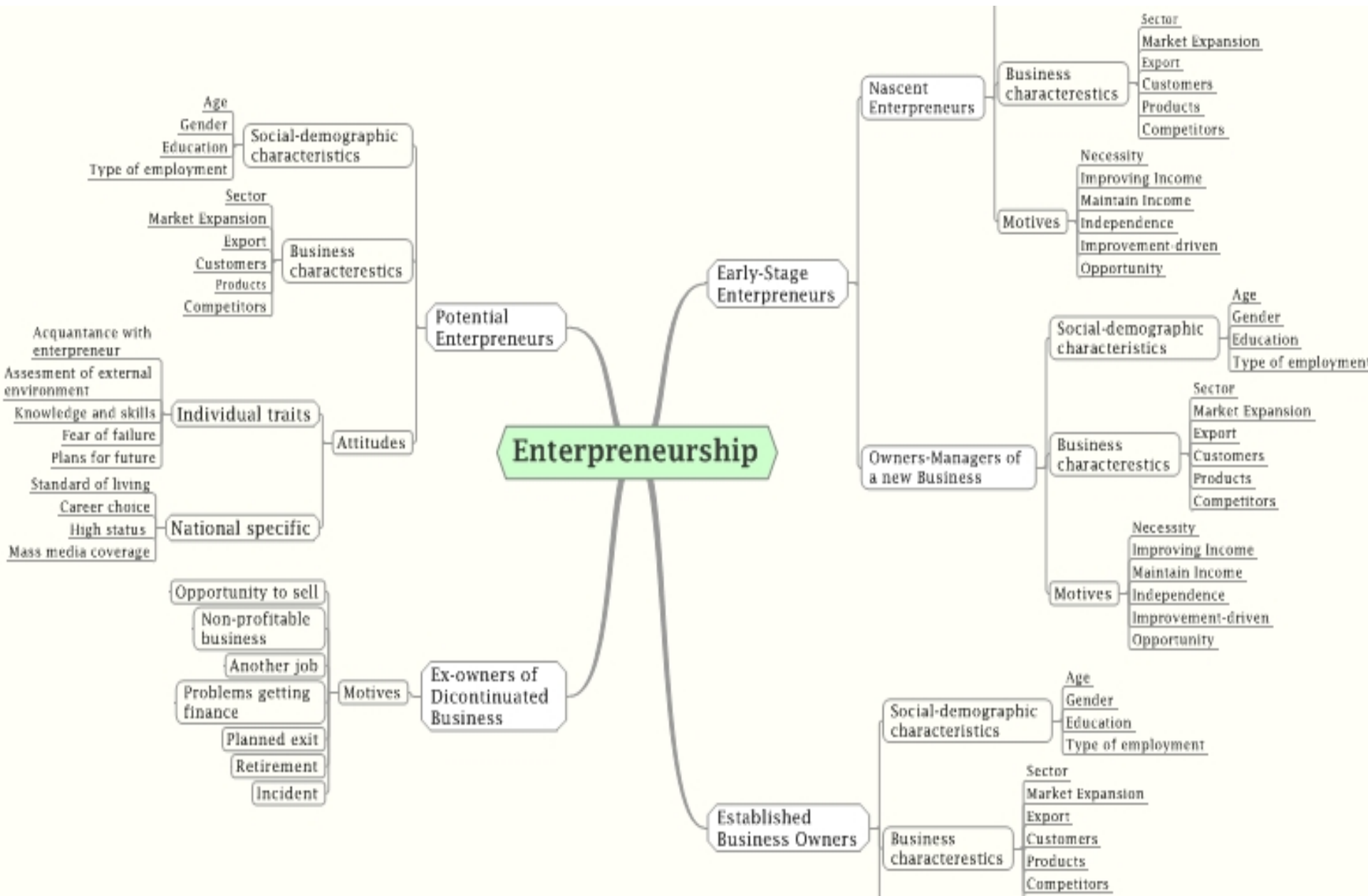


How to process Big Data?

- Global Entrepreneurship Monitor - cross-national research of entrepreneurial development and entrepreneurial activity in different countries
- Special questionnaire
- Multistage, stratified, probabilistic sample of 7500 respondents
- Ages 18 and 64 year
- 67 countries

218 variables





Conclusions

1. David Johnassen: “using maps as a mind tool”
2. Visual ontology orchestrating for developing big data storages
 - quickly,
 - efficiently
 - and effectively

Thank you!



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