

Information Retrieval & Text Mining

Text Mining and Analytics

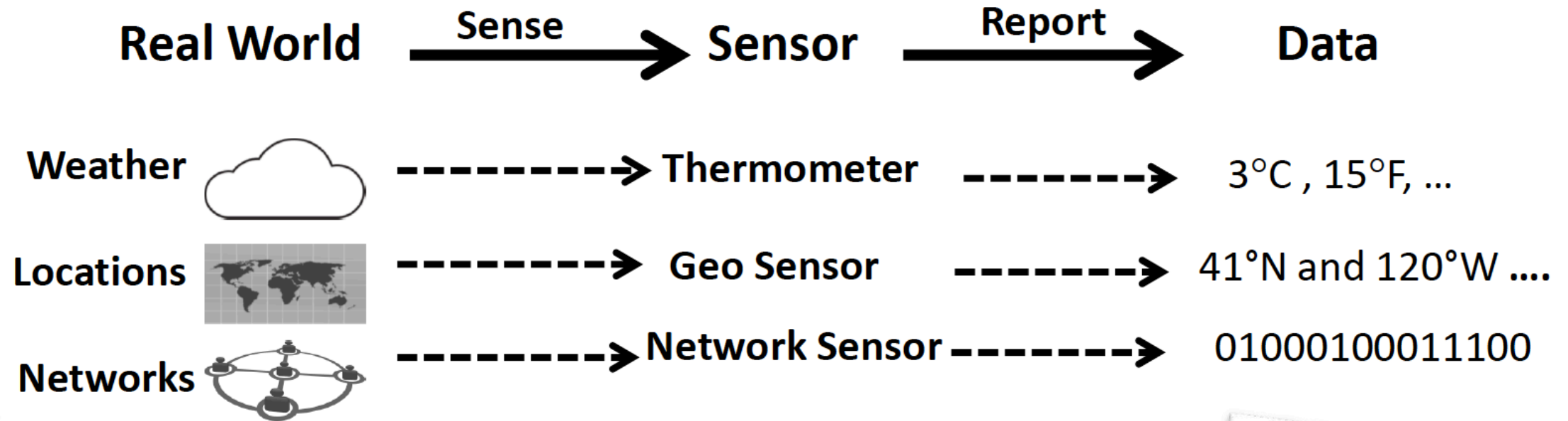
Dr. Iqra Safder

Information Technology University

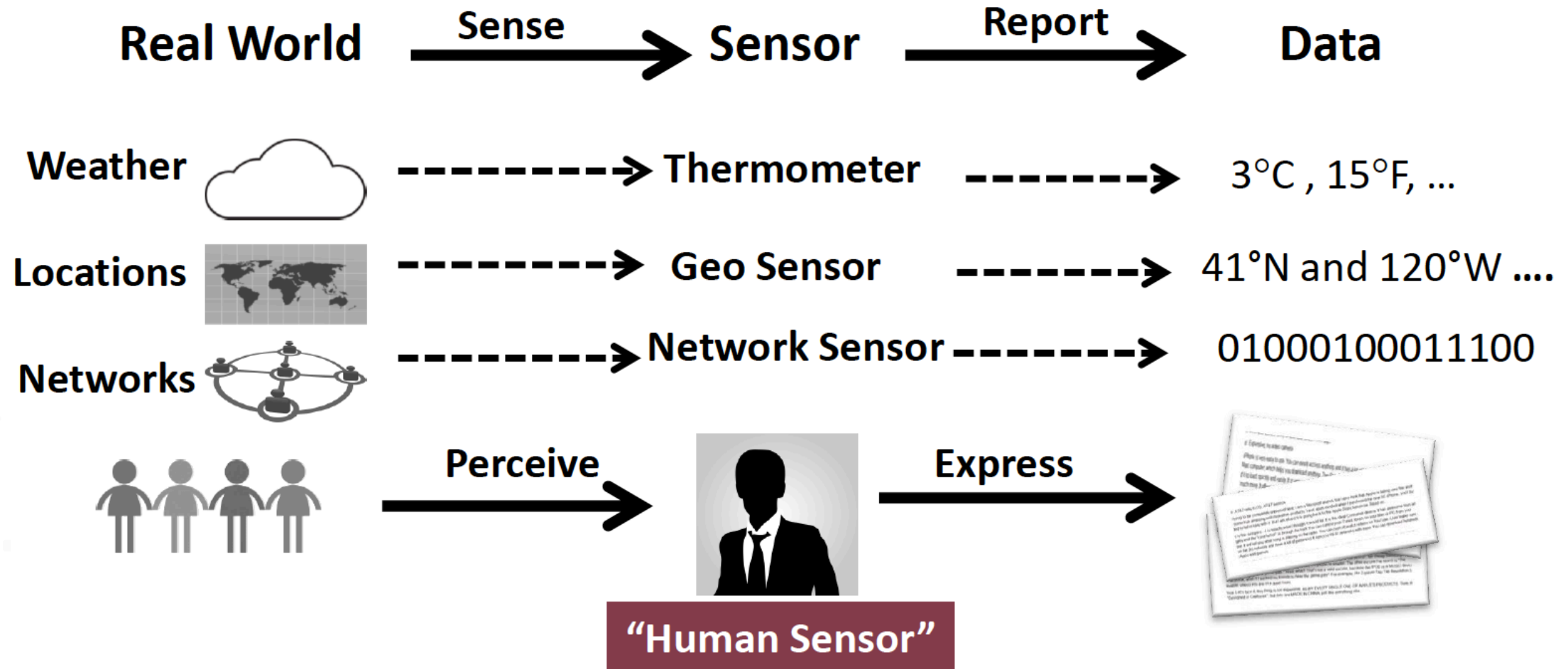
Text Mining and Analytics

- Text mining \approx Text analytics
- Turn text data into **high-quality information** or **actionable knowledge**
Positive, negative reviews summary.
 - **Minimizes human effort** (on consuming text data)
 - Supplies knowledge for **optimal decision making**
- Related to **text retrieval**, which is an essential component in any text mining system
 - Text retrieval can be a preprocessor for text mining
 - Text retrieval is needed for knowledge provenance

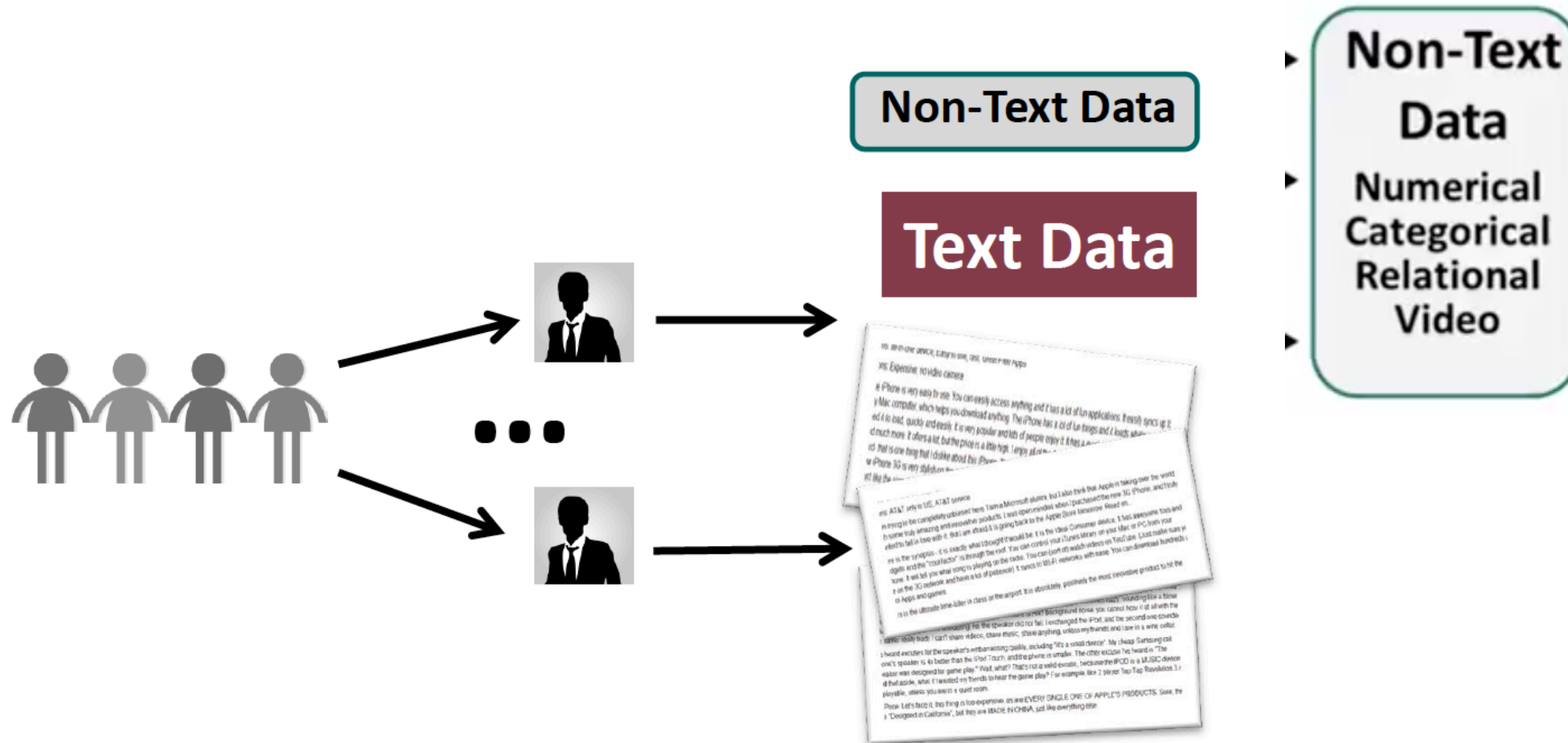
Text vs. Non-Text Data: Humans as Subjective “Sensors”



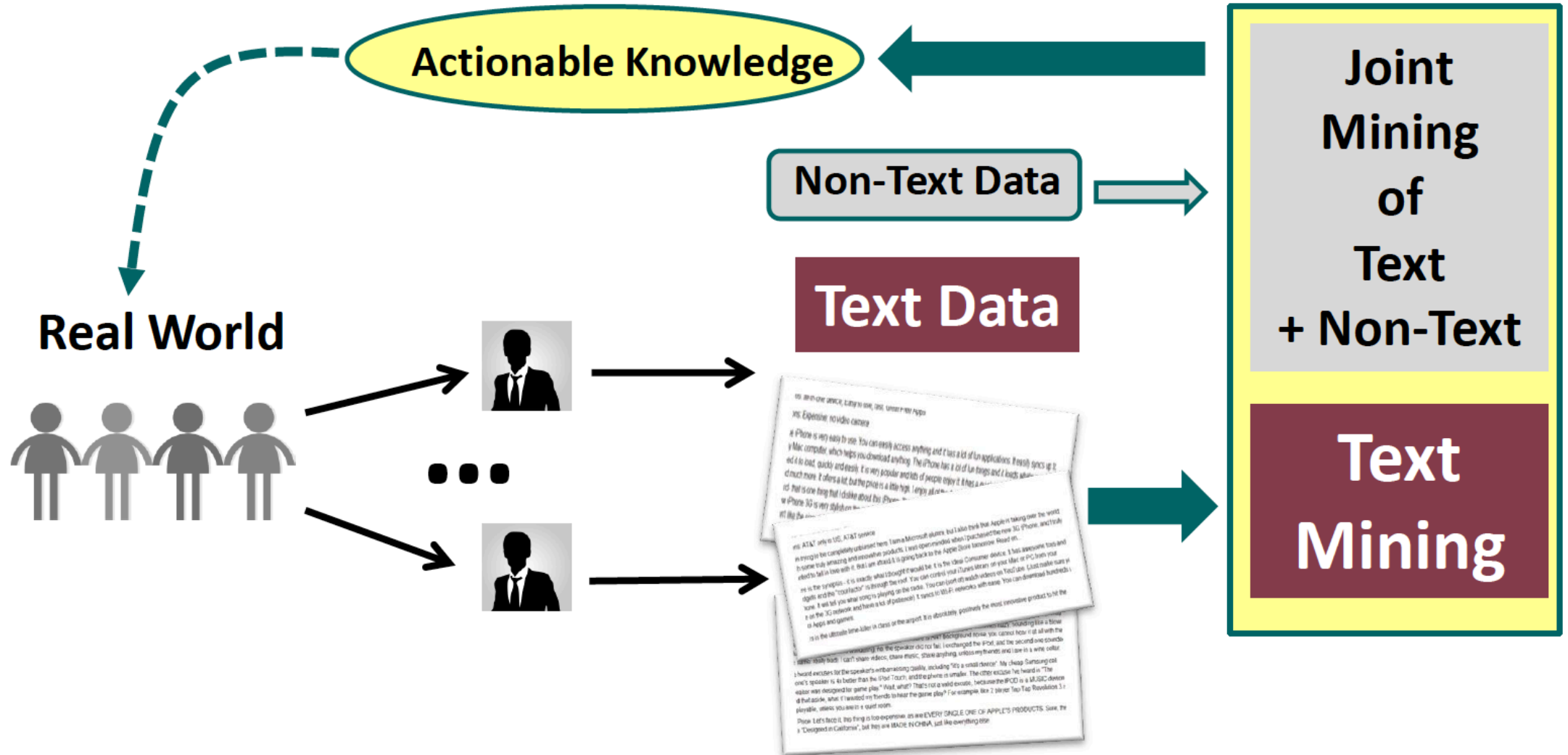
Text vs. Non-Text Data: Humans as Subjective “Sensors”



The Problem of Text Mining



The Problem of Text Mining



Landscape of Text Mining and Analytics



Landscape of Text Mining and Analytics



1. Mining knowledge
about language

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2. Mining content of text data



1. Mining knowledge about language

Landscape of Text Mining and Analytics

2. Mining content of text data

Real World



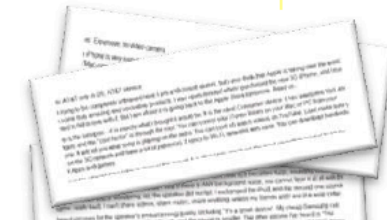
Perceive
→
(Perspective)

Observed World



Express
→
(English)

Text Data



3. Mining knowledge
about the observer

1. Mining knowledge
about language

Landscape of Text Mining and Analytics

4. Infer other real-world variables
(predictive analytics)

2. Mining content of text data

Real World



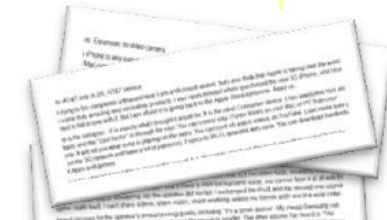
Perceive
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Observed World



Express
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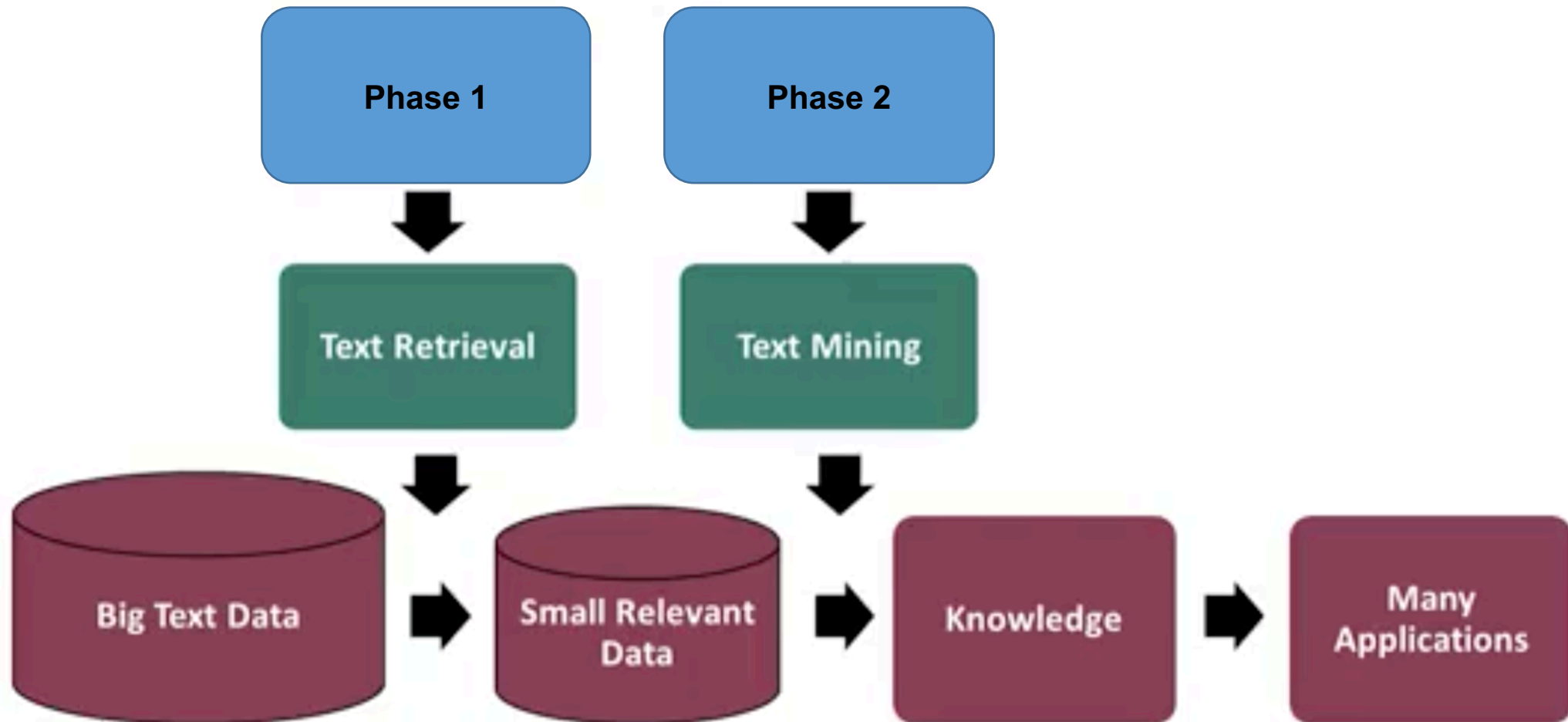
Text Data



3. Mining knowledge
about the observer

1. Mining knowledge
about language

Main Techniques for Harnessing Big Data: Information Retrieval + Text Mining



Landscape of Text Mining and Analytics

