{SENSEI}

SENSEI
Making Sense of Human-Human Conversation Data

www.sensei-conversation.eu
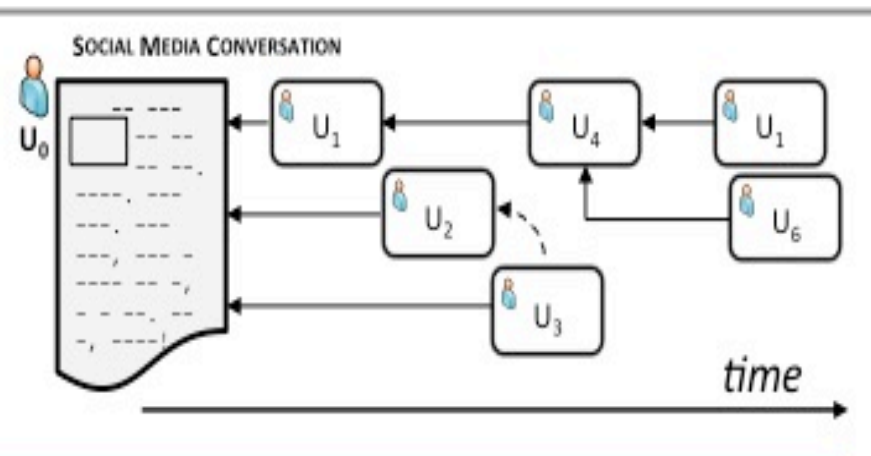
Human Conversations

Call Centers   **Social Media**
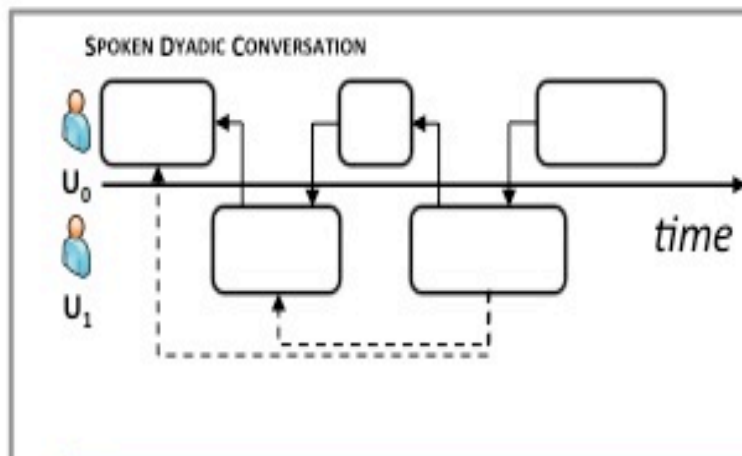
One-to-One   Many-to-Many
Speech   Text (side info Image/Video)
Conversational   Journalistic+Blogging
Vertical Topic   Wide variety of Topics

What is "Making Sense" ?
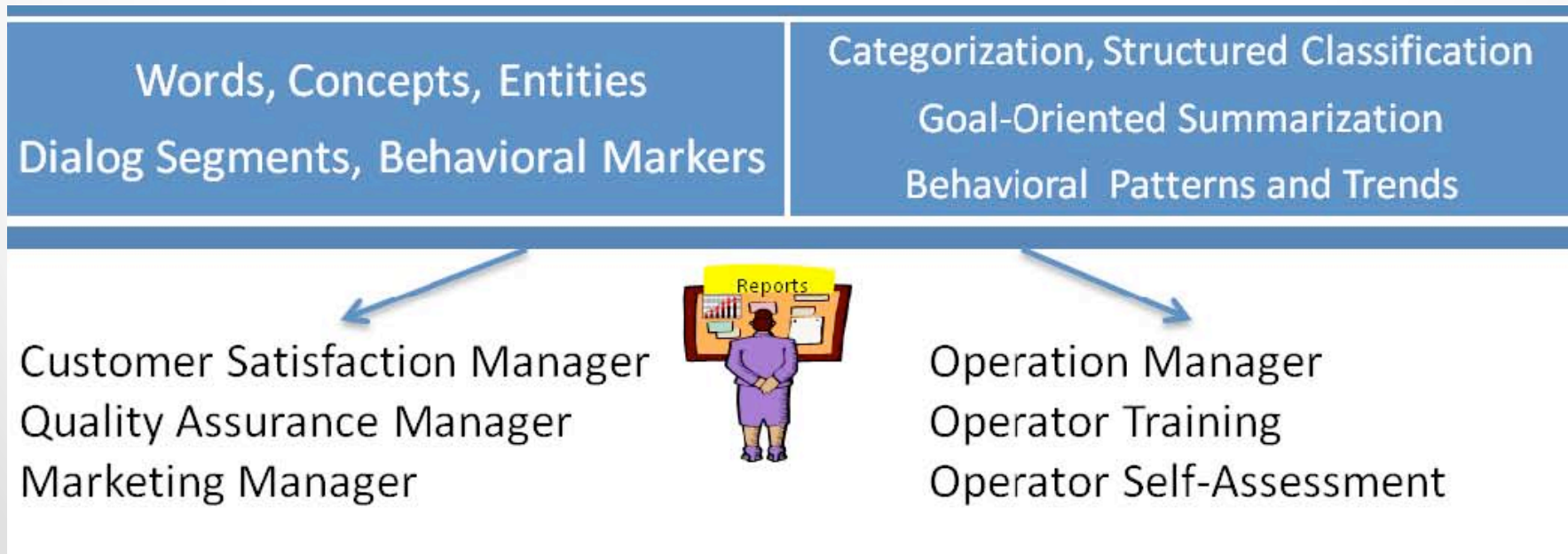## (Data Intensive Industrial Society)

1) *Advanced analytics …... It's a mistake to assume that acquiring <u>the right kind of big data</u> is all that matters.*
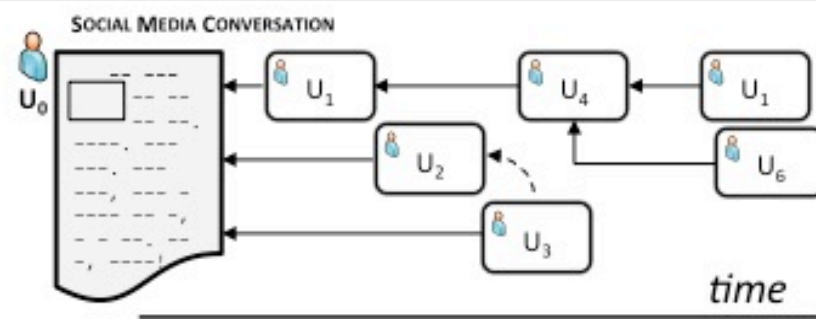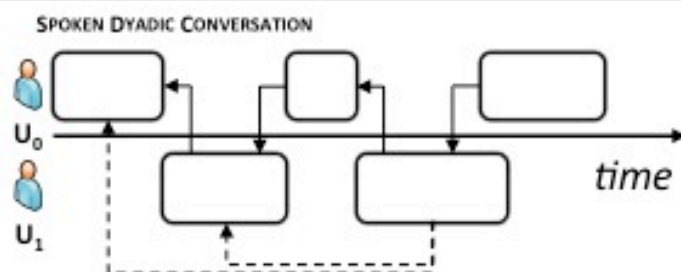
2) *Also <u>essential</u> is developing analytics tools that focus on business outcomes and that are relevant and easy to use for everyone from the C-suite to the front lines.*

3) *That requires …… deliberative effort to <u>weave big data</u> into the fabric of daily operations*

[Harvard Business Review, 2012]

Making Sense = Analysis + Generation +Evaluation

Words, Concepts, Entities	Categorization, Structured Classification
Dialog Segments, Behavioral Markers	Goal-Oriented Summarization
	Behavioral Patterns and Trends

Customer Satisfaction Manager
Quality Assurance Manager
Marketing Manager

Operation Manager
Operator Training
Operator Self-Assessment

Spoken Dyadic Conversation

U_0
U_1
time

Social Media Conversation
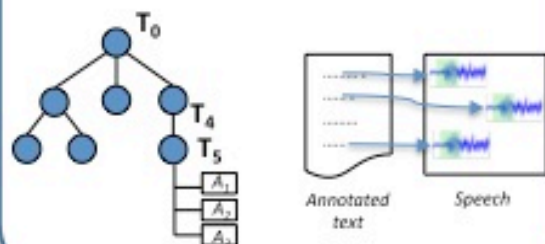
U_0
U_1 U_4 U_1
U_2 U_6
U_3
time

Semantic and Para-Semantic Parsing

Discourse Parsing

Aggregation and Summarization

End-User Presentation

Conversation-Oriented Summaries

T_0
T_4
T_5
A_1
A_2
A_3

Annotated text   *Speech*

Blogger-Oriented Summaries

T_5
G2
G1
G3
G4
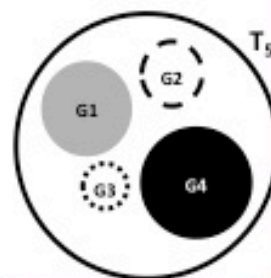
User-Defined Ad hoc Reports

TOPIC : $\underline{T_5}$
OPINION: $\underline{\pm}$
ASPECTS: $\underline{A_1, A_3}$

Rated Questionnaires

Questions Ratings

	R_1	R_2	R_3
1. -- -- --?			
2. -- -- --?			
3. -- -- ---?			
4. -- -- --?			

SENSEI's Outputs

- **Summarization** technology driven by rich <u>semantic</u>, <u>para-semantic</u> and <u>discourse annotation</u>

- Language technology **adaptation** for **diverse media channels and domains**

- End-user **requirement collection and analytics technology evaluation**

Dissemination

- **Shared tasks**
  - Speech summarization
  - News and Social media summarization

- **Data releases**
  - French, Italian, English
  - Call Center Spoken Human-Human Conversations
  - Social Media Conversations
  - Annotations (Semantic, Parasemantic, Discourse, Summaries

The Consortium

- University of Trento – UNITN (IT)
- University of Aix Marseille – AMU (FR)
- University of Sheffield – USFD (UK)
- University of Essex – UESSEX (UK)
- Teleperformance – TP (IT)
- Websays – Websays (ES)

Contact

Prof. Giuseppe Riccardi

University of Trento

Department of Information Engineering and Computer Science

sensei@disi.unitn.it