

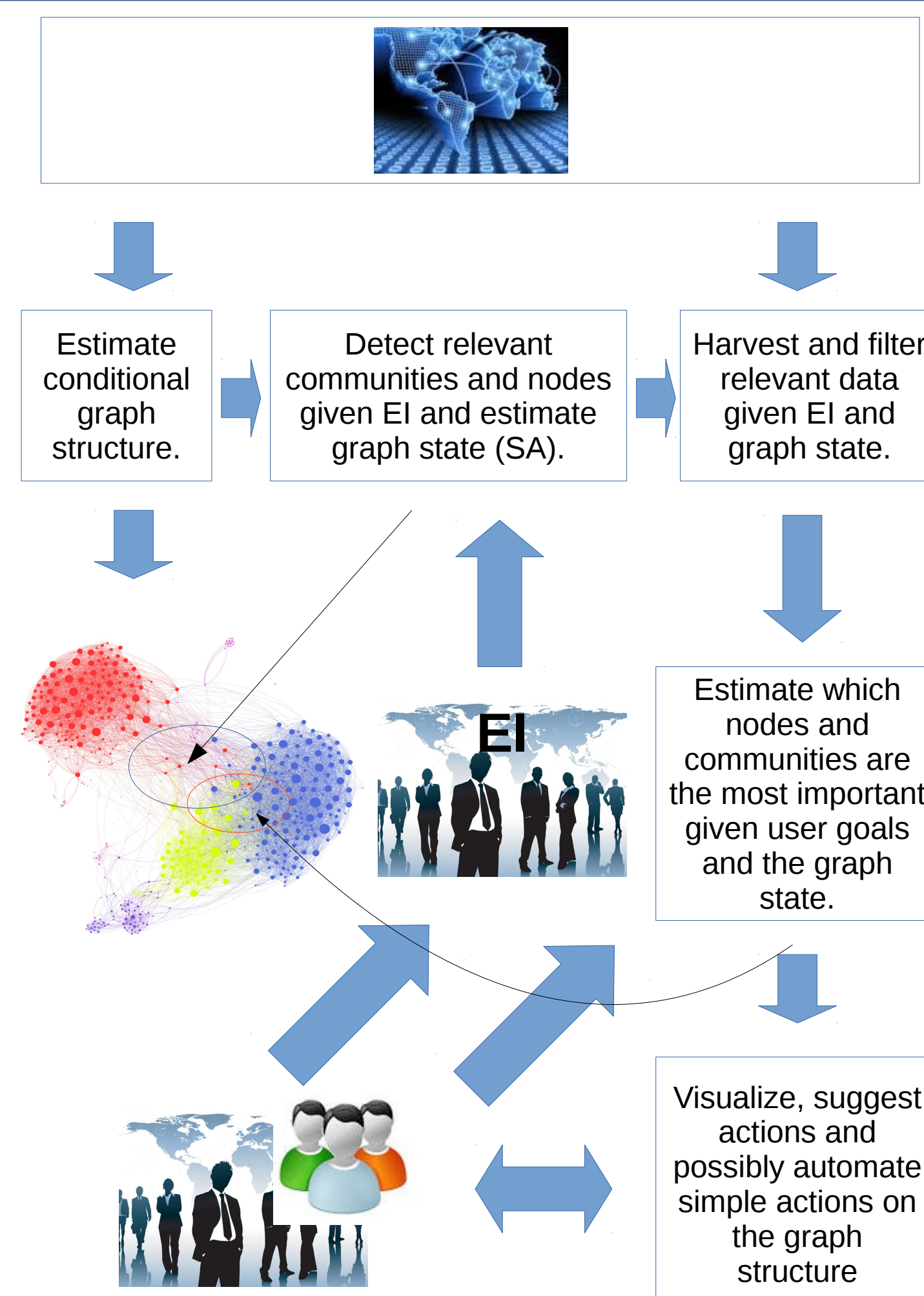
Automating Operational Response Planning and Execution based on Business Situational Awareness on Social (and Other) Media

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NEED & INDUSTRIAL RELEVANCE

- Media frenzy and surviving it
- Situational awareness (SA)
 - Traditionally related to physical objects and measurements
 - Concept applicable to media- and information management
 - Business SA
- Response time
 - Businesses need to react
 - Tools for assisting and automating response planning and execution

APPROACH



OBJECTIVES

- Automate (as) early (as possible) detection of business relevant anomalies in media data
- Automate harvesting relevant decision making support information
- Automate identification of relevant entities (nodes and communities, i.e. actors) in the (social) graph
- Automate action planning and in some cases execution on the underlying (social) graph

DELIVERABLES

- Formal definition of the Business SA problem in a probabilistic graph theoretic formulation
- Scalable high performance algorithms for
 - detecting conditional community structures (mixed membership) in large scale graphs with multimodal data associated with nodes,
 - predicting network response for both actions of single node and concerted community action,
 - automating filtering and harvesting relevant data and
 - automating simple operations on the graph structure.

APPROACH

- Three basic concepts
 - Entity of Interest (EI), e.g. brand, company etc.,
 - information about the EI and
 - a graph in which the information spreads.
- SA viewed as the state of graph given EIs
 - This is a great simplification to the traditional SA
 - All the operations are always about the connectivity of the graph
 - SA within organizations is not in the scope of this work

IMPACT

- Business related situation awareness has a wide range applications from advertising and reputation management to day to day business management. As such the potential market is almost limitless.
- The member companies benefit by getting methodology for situation awareness in social and other media, automating data gathering and filtering for operational response planning and decision support and also potentially automating simple response actions.