

### **SRI's Center for Innovation Strategy & Policy**

## Advanced Analytics in the Study of R&D

Use of artificial intelligence and machine learning to analyze the course, direction, and impact of R&D

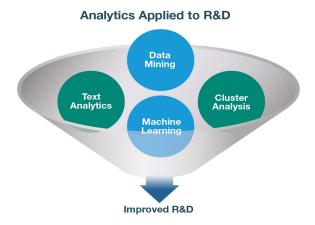
SRI uses a wide array of analytical tools and methods in the study of R&D, and where existing methods are insufficient, we create our own. For example, SRI has developed methodologies for investigating how topic models evolve over time and for using technical libraries to find topics in an automated fashion. We have also designed a preliminary approach to aligning disparate document groups (scientific papers and patents) in the analysis of technology evolution.

# CISP's client services specific to this practice area include:

- Develop, test, and validate methods to explore the evolution of technologies
- Use topic modeling to highlight the emergence of technical approaches
- Create workflows to apply common techniques in text analytics and machine learning (such as co-clustering)
- Apply methodologies to partition documents into clusters to extract statistics
- Develop weighting systems to score clusters

#### **Related materials**

Measuring R&D knowledge diffusion through large databases (Case Study)



#### For more information

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