

## Chapter 5

### Conclusion and Recommendation

#### A. Conclusion

Personal assistant software improves user productivity by managing routine tasks of the user and by providing information from online sources to the user. As discussed earlier, technologies such as web services, sharing of data, linked data, shared ontologies, knowledge databases, and mobile devices are proving to be enablers for tools such as personal assistant software.

Building an agent that can replace a human assistant has been a holy grail for software industry, especially in the field of artificial intelligence. Difficulties associated with capturing human intelligence in models that can be used to drive the agent have been one of the primary bottlenecks in building such agents. With the availability of data in semantic form, where the data carries itself the meaning and data sources are interlinked with each other, provides an opportunity to first capture human knowledge in this form and then apply reasoning engines that can interpret these models to make inferences for simple tasks.

This thesis work included conducting research on artificial neural networks, natural language processing, and intent parsing with a view to model simple day-to-day tasks of users using these technologies and to design personal assistant software that can leverage these technologies.

## **B. Recommendation**

The tasks backpropagation is applied to tend to fall within the following broad categories: Function approximation, or regression analysis, including time series prediction, fitness approximation and modeling, Classification, including pattern and sequence recognition, novelty detection and sequential decision making, Data processing, including filtering, clustering, blind source separation and compression, Robotics, including directing manipulators, prosthesis, Control, including computer numerical control.

Application areas include the system identification and control (vehicle control, trajectory prediction, process control, natural resources management), quantum chemistry, game-playing and decision making (backgammon, chess, poker), pattern recognition (radar systems, face identification, object recognition and more), sequence recognition (gesture, speech, handwritten text recognition), medical diagnosis, financial applications (e.g. automated trading systems), data mining (or knowledge discovery in databases, "KDD"), visualization and e-mail spam filtering.