1. Overview

In the application domain of stock portfolio management, software agents that evaluate the risks associated with the individual companies of a portfolio should be able to read electronic news articles that are written to give investors an indication of the financial outlook of a company. There is a positive correlation between news reports on a company's financial outlook and the company's attractiveness as an investment. However, because of the volume of such reports, it is impossible for financial analysts or investors to track and read each one. Therefore, it would be very helpful to have a system that automatically categorizes news reports on reflecting positively or negatively on a company's financial outlook.

In this exhibit, we demonstrate how GoodNews, which is the interface of the proposed method in technical paper of "Text classification for intelligent agent portfolio management", work in part of Warren project.

2. The Warren System

The WARREN system, named for famed American investor and author Warren Buffet, is an application of the RETSINA multi-agent architecture to the problem of financial portfolio management. A multi-agent system approach is ideal in cases that require the coordination of several component tasks across distributed and flexible networks of information sources and expertise. Whereas a centralized system is susceptible to system-wide failures and processing bottlenecks, multi-agent systems are more reliable, especially given the likelihood of individual component failures.

The WARREN system builds on current investment practices to deploy a number of different, semi-autonomous software agents. These heterogeneous agents acquire information from and monitor changes to stock reporting databases, interpret stock information, predict the near future of an investment, and track and analyze relevant financial news articles. The WARREN system is designed to monitor the ongoing portfolio management process, and thus to function under conditions of extreme uncertainty.
[Figure 1: At the beginning of Warren demo, a matchmaker agent is in RETSINA framework.]

[Figure 2: Next, some of the Warren related agents, iYahoo, iEdgar, and the new GoodNews agent, come up and start to register their advertisements with the Matchmaker. iYahoo gathers stock prices and other stock related information, in real time from the web. iEdgar harvests Financial Data Summaries from SEC 10-k filings, from the EDGAR web site. GoodNews is categorize the retrieved financial news articles with the request of Warren agent.]
[Figure 3: Interactions between a matchmaker agent and other agents in the demonstration.]

[Figure 4: A matchmaker checks up initial configuration of Warren and notifies the configuration to Warren agent.]
3. Categorization of Financial News Articles

[Figure 5: GoodNews agent is ready to get a company's name or ticker from Warren agent or user.]

[Figure 6: GoodNews agent now retrieved a set of financial news articles about a given company, e.g., Microsoft.]
[Figure 7: GoodNews finished to retrieve financial news and filter out non-financial news articles.]

[Figure 8: In case of being given a company's name or ticker from other agents, it works automatically. In other case, we can adjust its option of which select categorization method and learning method, and so on.]
[Figure 9: In case of begin given a company’s name or ticker from user, it is necessary to select an appropriate profile for the given categorization method.]

[Figure 10: When it finished to categorize given financial news articles, it presents the predicted results in “Prediction” column.]
WASHINGTON (Reuters) - The 18 states in the Microsoft Corp. (Nasdaq:MSFT, news) antitrust case said on Tuesday they were split over proposing a settlement of the three-year-old legal battle.

A third were opposed to the deal reached last week between the company and the U.S. Justice Department (news - web story), an attorney for the states told the federal judge in the case, clearing the stage for full-blow hearings on appropriate sanctions against Microsoft.

Another third of the states were preparing to sign the agreement after some minor changes were agreed to by the companies' sides Monday. They were the most undecided and were granted until later Tuesday to make up their minds.

"Those (supporting) states are very troubled by the agreement, even in the (latest) version," Brendan Sullivan, attorney representing the states, told U.S. District Judge Colleen Roll-Kohchy.

The judge asked Microsoft to agree to further settlement negotiations while preparations begin for more hearings.

"The issues in this case have been taken to a point," Sullivan said on behalf of the company. "Microsoft believes the settlement process has come to an end and will come to an end (later today)."

The states have been some of Microsoft's most aggressive critics and were blamed for the failure of settlement talks last year before federal appeals court Judge Richard Posner.