Case Based Reasoning at General Electrics

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If there are some problems in machine, we can adapt Case Based Reasoning to find particular solution to that problem. One of that examples is GE, a company uses CBR system for remote diagnostics, call center automation, internal productivity projects.

They use many CBR systems in their company. One of them is ICARUS, which can detect some problems, or potential problems in locomotives. Because locomotives are very complex and they are different one-by-one, thus kind of rule-base model cannot be adapted to that area. Thus, CBR will be one of the best solution to detect some problems in locomotives area. It can easily make maintainable diagnostic system by comparing current locomotive state to data in CBR model, and find best solution. It can perform 600 different kinds of repairs. This algorithm make more than 70% of accuracy diagnosing defect of locomotive problems. And there are many systems, such as ELSI, Aircraft Engine Monitoring, Call Center Automation, Call Taker Education, Web Self-Service, eMail Response Automation, Property Valuation, Color Matching, ColorXpress which use CBR approach to make automized problem solving system.

Why GE uses CBR approach in many areas? First, many companies are changing to service company. For example, we buy apple product not only they make good product, but they offer very customer-friendly services. And by using web, they can offer, gather more and more cases which can make CBR more accurate. Last, they can easily globalize company by only changing languages of web page, and also they can reduce there globalization cost because in past, to be globalized company, we need each branch in that country.