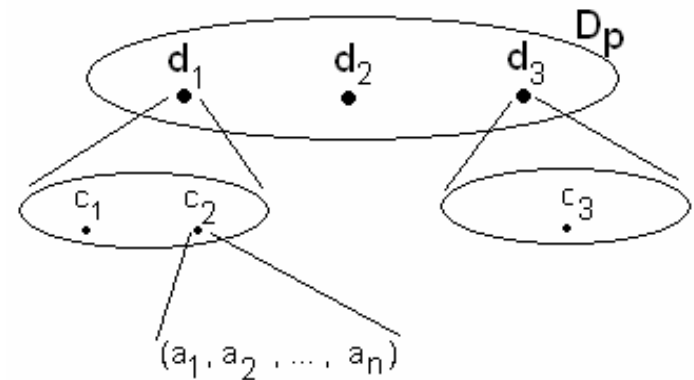


# Can intelligent systems act as effective decision aides?

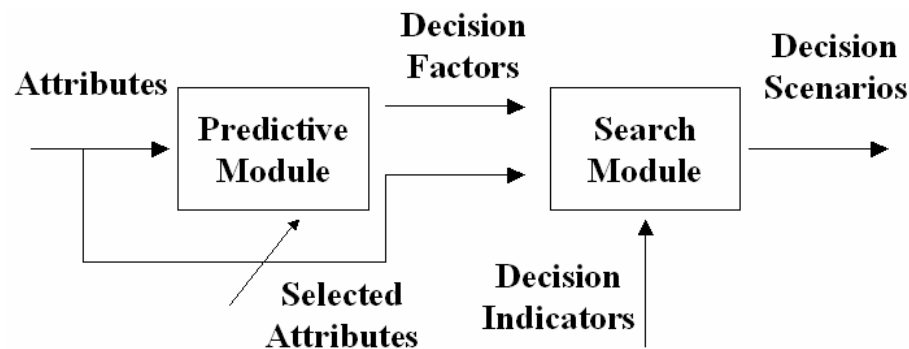
**Intelligent decision systems: using computational intelligence to the betterment of decisions**

Decision making is sometimes a hard task mainly due to data and environment complexities associated with the decision process. Without using a suitable supportive tool, this process can be slow, ineffective and error-prone.

Decision support systems composed of techniques of computational intelligence (CI) can be quite helpful on reducing the inherent uncertainty and effort of decision making.



**Decision space over problem class  $P$  encompassing decisions  $d_n$ , their components  $c_n$  and attributes  $a_n$**



**Overview of a Hybrid Intelligent Decision System**

*Hybrid Intelligent decision system* is an example of a two complementary module system assembled to help decision making.

The first module is responsible for forecasting decision factors (variables) and the second module aims at searching among generated future decision scenarios (*i.e.* candidate decisions).

This synergistic approach is also suitable to obtain conditioning factors leading to desired decision (measured by decision indicators), thus, overcoming some of the challenges posed by the 'Inverse Problem'.