CHAPTER 5

■ Do You Really Need More Information?

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OVERVIEW

■ The difficulties associated with intelligence analysis are attributed to inadequacy of available information

■ Is really Lack of Information the principal obstacle to accurate intelligence judgments ?

■ Experts in a variety of fields were used as test subjects.

■ Experiments were carried out to determine the relationship between the

  ➢ Amount of information available to the experts.
  ➢ Accuracy of judgments they make based on this information.
  ➢ Expert's confidence in the accuracy of these judgments.

Key Findings from this experiment are:

➢ Additional information goes not improve accuracy of his estimates.

➢ Imperfect understanding of what information they actually use in making judgments.

To investigate how experts use information to arrive at judgments, experiments were carried out by controlling the information made available to them.

Experiment: Betting on Horses

- Group of experienced horserace handicappers were shown list of 88 variables.
- Each handicapper was asked to identify 5 most important variables among them. Then they were asked to select 10,20 and 40 most important variables.
- They were given the true data for past 40 races and were asked to rank the top five horses in each race.
- Data was given in increments of 5,10,20 and 40 variables he had judged to be most useful i.e. he predicted each race four times.

RESULT

- Average accuracy of the predictions remained the same regardless of the information available to handicappers.

- 3 handicappers showed less accuracy as amount of information increased.
- 2 improved accuracy with more information.
- 3 were unchanged.

- All expressed steadily increasing confidence in their judgments as more information was received.

Information Accuracy Confidence

Figure 5
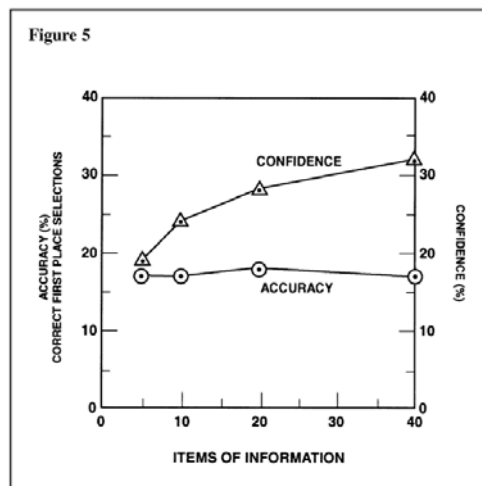
Modeling Expert Judgment

- Do Analysts have an accurate understanding of their own mental processes?

- Experts perceives his judgmental process as being more complex than is in reality.
- They overestimate the importance of factors that have only minor impact on their judgments.
- Underestimate the extent to which their decisions are based on few major variables.
- People's mental models are simpler than they think and analyst is unaware of which variables _should_ have greatest influence and also which variables _actually_ are having greatest influence.

When Does New Information Affect Our Judgment

Four Types of additional information that an analyst might receive:

➢ Additional details about variables already included in the analysis.
➢ Identification of additional variables.
➢ Information concerning the value attributed to variables already included in the analysis.
➢ Information concerning which variables are most important and how they relate to each other.

The accuracy of an analyst's judgment depends upon accuracy of values attributed to key variables (3rd type of information), accuracy of our Mental Model (4th type of information).

Additional detail on variables already in the analyst's mental model (1st type of information), information on other variables that do not have significant influence on our judgment (2nd type of information) have negligible impact on accuracy but form the bulk of the raw material.

Types of Analysis

- Data-Driven Analysis : Accuracy of prediction depends on the accuracy and completeness of the available data.

- Conceptually-Driven Analysis: Many unknowns, questions to be answered do not have neat boundaries, enormous complexity and uncertainty.

  Mental Models are largely implicit rather than explicit.

  Different Analysts examining the same data may reach different conclusions.

Mosaic Theory of Analysis

According to this theory, small pieces of information when put together enable analysts to perceive a clear picture of reality.

However, intelligence analysts do not work this way. Instead they form a mental picture first and then try to find pieces to fit in that picture.

Analogy for intelligence analysis is Medical Diagnosis.

CONCLUSION

Efforts should be made towards improving Analysis.

Efforts should focus on improving the mental models employed by analysts to interpret information.

Specific recommendations towards this are included in the next 3 chapters.

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