## A PERSONAL NOTE

The following note was circulated with the initial invitations to the Forum.

## The theoretical development of information science

Science, says Karl Popper, begins with a problem. What then is the key problem of information science?

I believe that others share with me much the same idea of what this key problem is. But, because information science has not yet established its theoretical framework of thought, we would each formulate this problem in rather different ways depending on our individual intellectual experience.

Any individual formulation also implicitly indicates both the kind of science we would need to solve the problem and the formalisms we would have to use. For example, if we formulate the problem in <code>social</code> terms, our analyses would be in terms of averages of behaviour and so our solutions would be essentially statistical. Can we hope to penetrate the statistical level?

So these are the general questions we hope to discuss:-

- 1. The phenomena, ie the problems to be solved.
- 2. The *kind of science* needed to solve such problems, eg statistical or causal.
- 3. The *formalisms* we need to apply in solving such problems, ie the techniques of mathematics, logics, semantics, syntactics .... we may need.

These three questions are clearly not independent.

The three survey papers are expected to take a panoramic view showing all the options that are open to us. Subsequent papers will discuss narrower aspects and demonstrate the

potentialities of particular approaches and particular techniques.

The main purpose of the closing discussions will be to seek to establish some consensus about targets and priorities in the hope of making our subsequent theoretical contributions more coherent.

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