

This book is extremely dense, so to aid in understanding the book I would like each person to summarize and outline short sections.

How to summarize and outline your section (do not to exceed one page)

1. Generate a glossary of terms and people
2. Summary of concepts
3. Generate at least two question
4. How does this section connect to the previous section and next section?

For example:

The Mind as a Processor of Information by Joao Branquinho

How should one characterize the task of cognitive science in a way that would enable us to obtain an integrated picture of the disparate contributions in this volume, in which they are all part of a single theoretical enterprise? A common and convenient way is to define cognitive science as the scientific study of the mind and of its role in the production of intelligent (purposeful, goal-oriented) behavior.

Although there is some controversy surrounding the issue, one should perhaps note that the term 'mind' is usually taken in this context to refer not only to the human mind, but in general to the mind of any intelligent information-processing system. Hence, even machines and artifacts of certain kinds—not to speak of animals—should not be ruled out, at least at the outset, as lacking mental activity in the relevant sense. As long as they can be reasonably counted as intelligent information processing systems, they are assumed to be endowed with minds. (Whether there really are, or could really be, machines that were capable of meeting that condition is in itself a moot issue in the foundations of cognitive science, and one that need not bother us here.) The leading idea underlying the above identification of the subject matter of cognitive science is that minds are basically processors of information; or, given that cognition is just (in one sense) information processing, it is the equivalent idea that minds are essentially cognitive devices. This idea seems to be rather pervasive in contemporary cognitive science. In fact, it even seems to constitute one of the few substantive foundational assumptions in the area that have been relatively immune to dispute so far. In particular, the assumption (or certain versions of it) is clearly endorsed both on classical or symbolic approaches to the mind, and on connectionist or non-symbolic approaches, these being the two main opposing methodological schools of thought currently available in cognitive science. Indeed, almost all those who work in this field would agree in identifying the processes to be studied in cognitive science as being those commonly involved in the information-processing activity of the mind (or of the brain), namely the processes of receiving, storing, retrieving, modifying, and transmitting information of various kinds.

The Mind as a Processor of Information by Joao Branquinho

Term

Cognitive Science - The scientific study of the mind and of its role in the production of intelligent (purposeful, goal-oriented) behaviour (Joao Branquinho). The interdisciplinary study of mind and intelligence (Paul Thagar).

Mind - Any intelligent information-processing system (Joao Branquinho).

Connectionist or non-symbolic – Connectionism Approach to cognitive science that models thinking by artificial neural networks.

Joao Branquinho – Philosophy, University of Lisbon, Portugal. Author of The Problem of Cognitive Dynamics. Grazer Philosophische Studien 56:pp. 2-15 (1999).

Summary of Concepts

According to Branquinho, one of the few undisputed assumptions in cognitive science is that “cognition is just (in one sense) information processing.” The mind is any intelligent information-processing system and “minds are basically processors of information.”

Questions

How would we know when advances in computer science create a machine with a mind?

How are the symbolic and non-symbolic approaches to cognition different?