

15. Building subject files of complex material is a difficult task to carry out well. Rules for this operation are usually difficult to describe and thus the task is not easily automated.

16. If the essence of a text could be concentrated in one paragraph in the item, such as is done by abstracts, subject selection would be eased since the entire item would not need to be read with as much care. This would require a more disciplined approach to communications generation and could only be achieved for material originating in the Department. Communications entering from outside would not be expected to comply with such rules. Automatic selection of keywords by computer could obviate the need for subject files since the computer could make the necessary selections, but this approach is still providing unpredictable results and is still the subject of research. It is likely to be a number of years before this approach could be confidently adopted.

Full Text Storage

17. Full text storage of documents and communications is necessary to provide the complete item on demand. A minimal storage system for full text would consist of originals and paper copies stored either centrally or at various locations. Problems associated with this approach are volume and massive paper-handling, especially in large growing systems such as in this department.

18. A number of alternative means of capturing and storing full textual information other than the original source documents are available. The main considerations in selecting the most appropriate are the volume to be retained, amount of new input, the volatility of individual items in the collection, time considerations and the need for accessibility to the information.

19. In the case of External Affairs the volume to be retained is quite large and is constantly growing. Once received, the individual items are very stable, there being seldom any need to update the information as would be the case for an inventory control system.

20. Since time is a crucial factor in the information field, it is imperative that new material be immediately made available to appropriate personnel as fast as possible, while retrieval of information, for the most part, requires rapid response, a characteristic achievable using full text storage and CRT retrieval.

21. It is against these External Affairs requirements that any full textual storage system will need to be examined.

22. Full text systems which use electronic representation of the text fall into two categories; machine-readable, where each character of information is electronically coded, and video, where an electronic image of the entire document is captured.

23. Video systems allow rapid information capture and provide a means of attaching some identification information to each image to assist in retrieval. The images are stored sequentially on magnetic tape and provide quick update capability, multiple user-access to the same information and reasonable storage costs. The two main suppliers of video systems of this sort