The application of information system design is a multidisciplinary job. The various issues in application: 1) design for people, 2) integration of information systems with their environment level, 3) methods for reconstruction design performance evaluation, 4) bridging theory and applications gap, 5) access control (not brought up because the group said it wasn't necessary).

The issues and problems suggested here are questions that have been raised in a variety of contexts from many of the participants at this meeting. The application group found that there are no clear parameters delineating the specific areas that applications should address. The issues that have emerged from the group discussions are broad and encompassing. Issues of applications research arise in the conceptualization, design implementation and their various interfaces.

The subgroup "design-for-people" came to the conclusion that "design-for-people" means that all those who are included in the information system or who will be effected by that system must be considered explicitly in the design, construction and the implementation of that system. Systems design must explore the following human realities:

1) Cognitive reality
2) Effective reality
3) Physical reality
4) Ethical reality
Basic research problems in these areas will be addressed first by information scientists concerned with cognition, linguistics and other disciplines of human information processing. Second, information scientists concerned with social psychology and other fields dealing with the effect of change on individuals. A third point: information scientists concerned with human factors are the human machine interphase, (engineers, psychologists, etc.). And fourth, information scientists concerned with the philosophy, law, and the related fields dealing with ethical, political, and legal issues. In addition, information scientists interested in systems theory are needed to provide guidelines for integrating research results in these specific areas into the design of the entire system. This program occurs in the framework of cyclical process where we have theory, design and application. The cyclical process is not presented as a communication model which would need to link all components with each other, rather it is the model for the logic process.

We observe theories are frequently ignored in the design process. It is suggested that special efforts be made to improve communications among scientists and designers. In the opinion of the working group, the following specific issues should receive research attention:

1. Methods for formalizing user input and feedback into the design and implementation of information systems.


3. Methods for determining appropriate users of intermediaries.

4. Case history methodology for general theory development.

5. Application of microprocessors based on technology in information design.

The second part of our issues is the integration of information systems with their environment. Here the group understands the reality of the environment. It has been demonstrated at this meeting that information systems radically effect and are effected by the total environment which they exist. We see these issues as being equal importance to design for people, both being necessary considerations for the success of information systems; neither capable of being successfully considered without the other. It is suggested that the basic path of design in any information system must be methodical. A detailed examination