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## SEVEN GENERAL GUIDING PRINCIPLES OF DATA PROCESSING

by Richard A. Kaiman  
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*In designing a new system,  
in re-evaluating  
an existing one,  
every analyst should keep  
these rules in mind.*

VOLUMES have been written on how to design information systems. All of it, however, can be boiled down to a few simple principles.

The following guiding rules sum up the basic concepts that every data processing system should follow. A full-length article could be written about each of them. Here

they are distilled as a basic reference tool.

Anyone beginning the design of an information system would do well to keep them in mind. Practicing systems analysts and data processing administrators might also review them from time to time to make sure that the system still conforms to these ground rules.

1. It is financially inappropriate to collect and process all the data that an organization might generate.
2. An inadequate supply of essential data is likely to lead to the failure of the organization.
3. Data should be collected at each stage of the operation to enable the organization to optimize its ability to attain its goals and objectives.\*
4. Data, once recorded, should not be re-recorded at other stages in the information stream.
5. An item of information is meaningless until it is related to another item or fact.
6. Data should be recorded in a manner that is appropriate to their eventual use.
7. Information should be collected, arranged, stored, retrieved, and manipulated in such a way as to satisfy the goals and objectives of the institution economically and efficiently.



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\*R. N. Schmidt and W. E. Meyers, *Electronic Business Data Processing*, Holt, Rinehart, and Winston, New York, 1963, p. 30.