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KEYNOTE ADDRESS

STRATEGIC PLANNING FOR THE PROCESSING AND COMMUNICATION OF INFORMATION IN THE 80s

by

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As most of you know, the food industry is undergoing an electronic revolution. Computers and scanning are perhaps the "hottest" buzz words in the industry today. During the **next** three days, sixteen speakers will **be** addressing topics directly related to technological advances being made in computer and scanning system applications. Consequently, by the end of **this** program we should all have a better understanding of the future direction of electronic technology and **its** associated applications in the food industry. Therefore, I do not intend to pre-empt these speakers by focusing my entire presentation on directions in computer or scanning technologies.

The focal point of my presentation is going to be on "Strategic Planning for the Processing and Communication of Information in the 80s." The "buzz word" often used to characterize this is "Information Resources Management." It is to this fundamental issue I believe we, as researchers, educators, and businessmen, must address ourselves if we are going to help companies in the food industry avoid costly mistakes in adopting the computer, scanning, and other electronic technologies of the 80s. Without sound planning, a fragmented, piecemeal approach to the electronic age of the 80s will result, and

substantially greater costs will be incurred than would otherwise be necessary.

To illustrate the strategic planning process, I will largely draw on the approach we have taken in the Spokane Bank for Cooperatives. The applicability of this approach to the food industry is sound--based upon discussions I have had with food industry companies who have taken a similar approach and with consultants serving the industry.

Let me begin by bringing you up to date on the current status of information processing and the revolution it is undergoing. It is within this "electronic age" environment that companies in the food industry will find themselves defining their information processing and communication requirements during the 80s.

The evolution of information processing is illustrated in Exhibit 1. The components of information resources management are illustrated in Exhibit 2.

The trend toward information resources management and office automation during the 80s is largely accounted for by efforts to improve productivity within the work place. The cost of office operations is

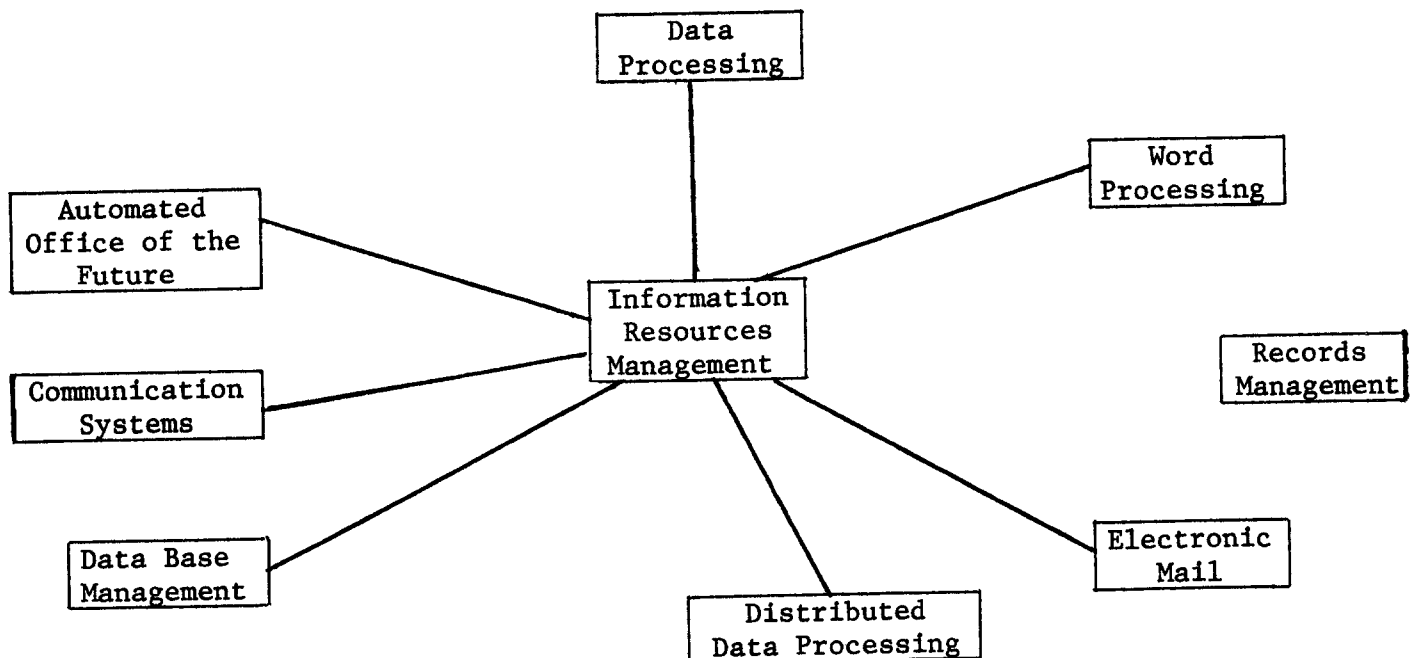
Exhibit 1

The Evolution of Information Processing

Time Period	Buzz Word Used to Characterize EDP	Organizational Impact/Benefits	Automation Characteristics
1955-1965	EDP (Automatic Data Processing)	Company	Centralized Serial Processing Card Oriented
1970-1980	MIS (Management Information System)	Departments	Terminal Input Distributive Processing Accounting Oriented
1980-19--	IRM (Information Resources Management)	All Employees	Office Automation Data Management Telecommunications Total Company MIS

Exhibit 2

Information Processing Revolution



increasing at a rate of 12 percent to 15 percent a year, and sometimes even higher. Approximately 75 percent of all office costs are accounted for by managers and professional workers. Reportedly, a major way to address this cost problem is to improve the productivity of office workers, including managers and professionals. Office automation and the office of the future is concerned with managing the introduction of technologies into the office in order to improve productivity. The ultimate aim is to improve office productivity using all of the tools of technology available. It has been estimated that with effective use of office automation, \$300 billion in office worker costs could be saved by 1990, as illustrated in Exhibit 3.

Overall, information resources management involves the management of the resources concerned with integrated systems support and servicing of an enterprise's information processing and communication requirements. Exhibit 4 provides a succinct definition of information resources management.

Let me now share with you the approach we took in our Bank toward planning for the processing and communication of information in the electronic age of the 80s. Approximately 18 months ago, senior management recognized the importance of evaluating the type of automated devices or equipment which would be available and required to support an efficient company-wide integrated management information system for our new building complex.

Consequently, in November of 1980 we undertook an Information Requirements and Automation Study to evaluate our long-range information needs and automation alternatives. Our goal was to produce a long-range information processing and communications plan, including a logical development and implementation program.

Here is the approach--or what I refer to as the strategic planning **process**--we undertook and still are in **the process** of completing as we **prepare** to meet our future anticipated information processing and communication requirements. We began by asking ourselves this fundamental question:

"What must our information system be like five to ten years hence to assure efficient operations?"

More specifically, we sought answers to the following key planning issues, as illustrated in Exhibit 5.

We initiated our study and planning processes by first conducting a one-day training program for all employees with these objectives:

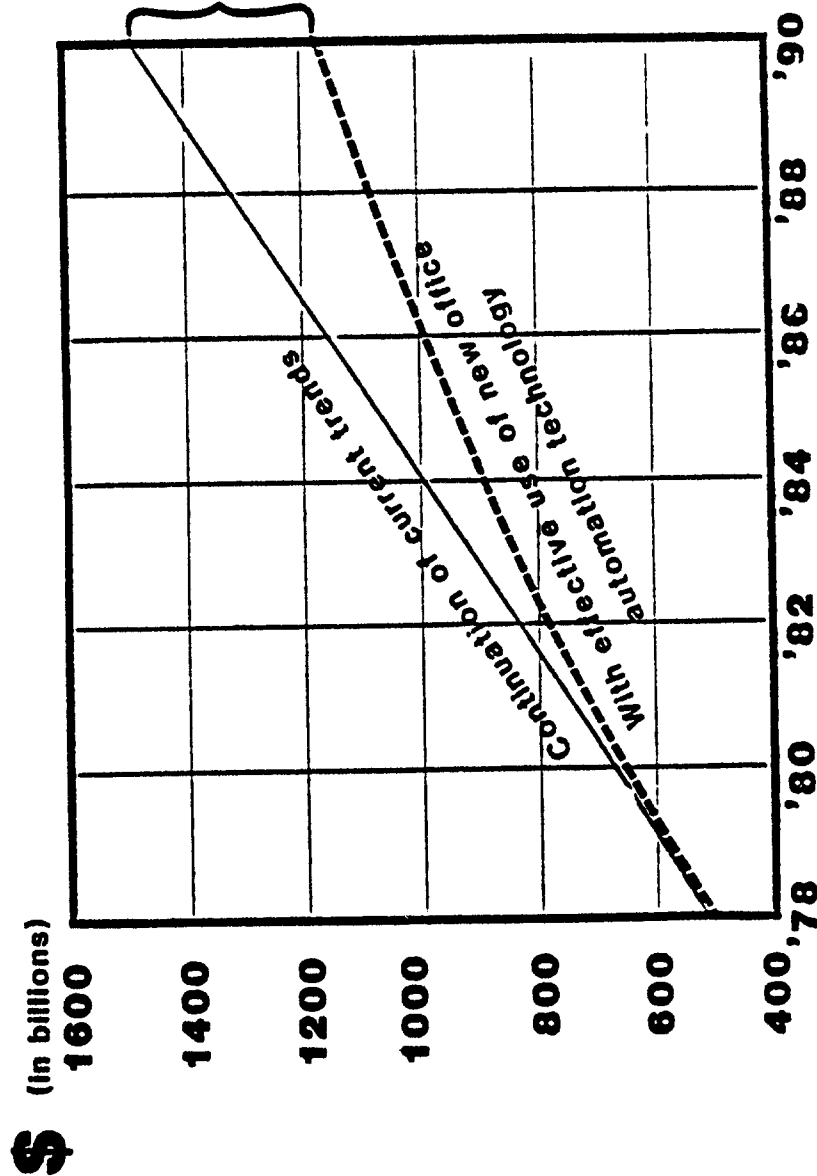
- Provide them with a basic understanding of the capabilities of automated equipment;
- Define many of the confusing technical terms associated with office automation;
- Eliminate fears of job replacement due to the results and implementation of sophisticated equipment;
- Provide a foundation by which employees could better assist us in conceptually defining our overall information handling and processing requirements.

Next, we formed a project team made up of representatives from each department and major support area within the Bank. We then defined individual team member responsibilities and developed general work plans specifying the tasks to be completed throughout the project. This was the major purpose of the project team:

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Exhibit 3

Projected Direct Cost of U.S. Office-Based White Collar Workers



WITH EFFECTIVE USE OF OFFICE AUTOMATION, IT IS ESTIMATED THAT \$300 BILLION IN OFFICE WORKER COSTS COULD BE SAVED BY 1990.

Exhibit 4

Information Resources Management

Involves

The management (planning, organization, direction, operations, and control)

Of

The resources (human, fiscal, physical, and informational)

Concerned with

Integrated systems support (design, development, enhancement, & maintenance)

And

Servicing (processing, transformation, distribution, storage, retrieval, & disposal)

Of

The enterprise's information (data, text, voice, image)

Exhibit 5

Key Planning Issues

1. What are our filing, word processing, and data processing requirements?
2. How can we best support our information handling needs?
3. Who controls and manages our automated office/MIS?
4. What is the value of doing it and is it worth the cost?
5. What equipment is available or recommended now or in the near future?
6. How can we get there from here?

1. Provide input for decisions from personal, departmental, and Bank perspectives;
2. Help coordinate data gathering; and;
3. Serve as the primary communications link to relay progress on project activities to Bank personnel and questions and concerns of the Bank to the studies coordinator.

Then we began to complete the following phases of the study as illustrated in Exhibit 6.

Phase I of the project involved collecting data about **our** current operations and determining our functional business processes as illustrated in Exhibit 7. We defined our business processes as those things that had to be done in order to carry on our business. Essentially, they constituted the decision-making and/or activity areas required to manage and administer the operations and resources of our Bank. We wanted to design a management information system that supported these functions rather than our organizational structure itself. Moreover, our belief was that management information is a corporate asset versus a department or individual employee asset. Therefore, we analyzed our total company management information decision-making needs and their associated interrelationships. This helped us identify what information should be computerized.

As part of our operations review, we also identified our staff's involvement within each functional business process, which involved having each staff member complete a current job analysis worksheet to define their level of involvement, the amount of time they spent on various activities, and to provide data for cost analyses.

We further developed work-flow diagrams of the various functions performed within each business process. We then collected volume information in terms of mail processing, telephone usage, power file usage, data inquiries, loans processed, and word processing statistics, etc. Finally, this phase involved determining and attaching priorities to improvement opportunities through the use of automation technologies.

Phase II of our study involved attaching priorities to automation capabilities and information requirements as illustrated in Exhibit 8. This phase also involved developing a conceptual design of our management information system requirements as illustrated in Exhibits 9 and 10.

Phase III of our study involved identification of processing alternatives of terms of utilizing an in-house computer versus an intra-district computer. It also involved determining our communication and data base requirements, analyzing the organizational impact of office automation, and determining the associated functional changes that might take place within our Bank. Furthermore, Phase III provided a basis for determining whether or not to continue the design, development, and implementation of an automated office management information system. Finally, a request for proposal was distributed to identify hardware and software alternatives and associated costs.

Phase IV of our study involves designing our data base, telecommunications network, and application specifications. We are now in this stage and are undergoing a study to determine application and development costs and software package availability.

Phase V involves creating software program specifications, actually

Exhibit 6

The SBC - Strategic Planning Approach

- Phase I - Operations review (What's our real problem?)
- Phase II - Conceptual system requirements (What are our needs?)
- Phase III - Feasibility analysis (Is it justified?)
- Phase IV - Detail requirements and design (Let's see what it looks like.)
- Phase V - Programming and testing (Convert it to machine language.)
- Phase VI - System implementation (Get it to work.)
- Phase VII - System implementation (Keep it current.)

Exhibit 7

Spokane Bank for Cooperatives Business Processes

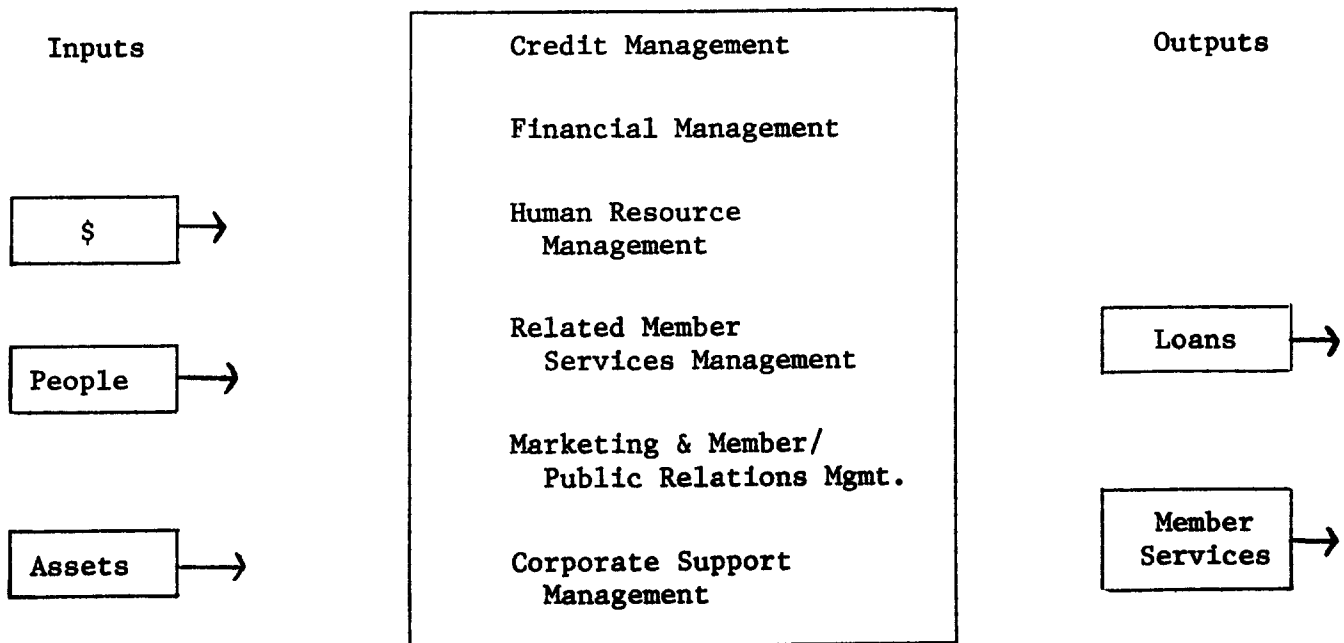


Exhibit 8

Spokane Bank for Cooperatives Automated Office Study Potential Capabilities Surfaced During Interviews with Staff

Importance Rating			Desired Implementation			Capabilities
			1st 1-2 Yrs	2nd 2-4 Yrs	3rd 4+ Yrs	
1	2	3				
						<u>Data Proecessing</u>
X			X			1. Reporting capability for SBC financial information (ratios, volume, etc.)
	X		X			2. Reporting capability to trace borrowing history (volume) of Associations by month.

- 1 = Most justified
2 = Nice to have
3 = Probably not justifiable

Exhibit 9

**Phase II
Spokane Bank for Cooperatives
Conceptual Systems**

Applications

Association Financial Analysis →

Loan Accounting →

Loan Portfolio Management →

General Ledger →

Money Desk →

**Collateral and Covenant
Compliance** →

Loan Processing →

Association Servicing →

Records Management →

W/P →

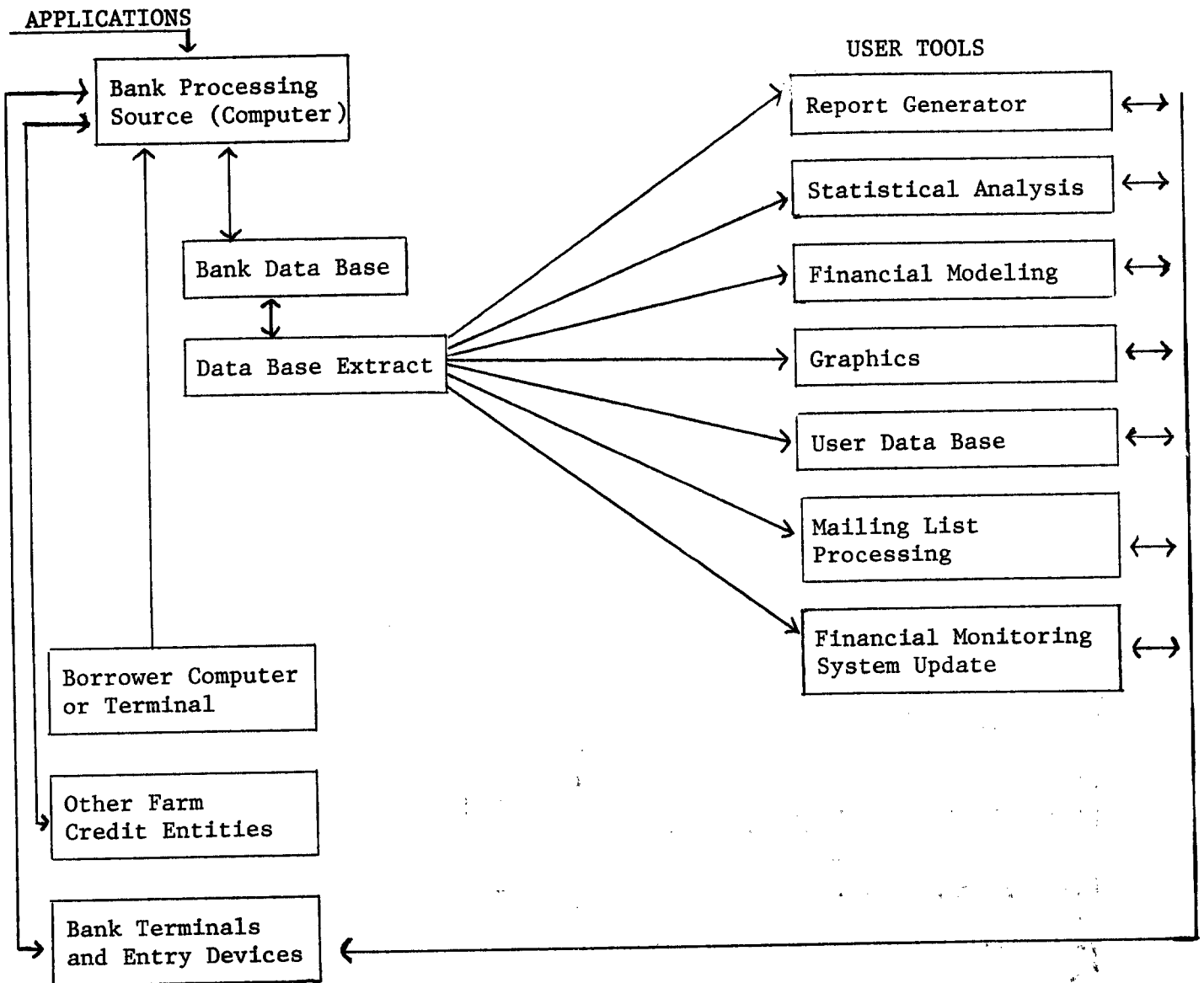
Planning →

Training →

External Data →

International Finance →

Exhibit 10



programming our selected applications, developing the documentation for these applications, and running pilot programs to help test and phase in each application on a minimum cost basis.

Phase VI involves implementing a user training program, the installation and planning of our automated office and management information system, and the testing thereof.

The final phase involves keeping existing programs and applications up to date and developing new enhancements as the need arises.

Let me now sum up. During the 1980s, electronic technology is expected to advance to the stage where it will become cost effective to support many traditional information processing and communication procedures with automation. The benefits to be realized through automation are several. One is to acquire the capability to manage information as a corporate asset much like capital and personnel. Another is to improve employee productivity through cost effective automation technologies and to generate office labor cost savings by reducing the volume of paper work processed and therefore minimizing the need to increase office worker numbers. Finally, automation technologies should result in providing better and more timely management decision-making information. The key, however, is for managers to define their information needs and then to make effective use of the information produced through automation.

Conversely, while automation can provide many benefits to companies in the food industry, it should not be undertaken for automation's sake alone. Hastily considered automation

may result in little or no savings--or worse yet, it could increase costs.

Furthermore, the automation concept cannot work without staff and top management commitment. Training can be an effective means to obtain this commitment. It helps to familiarize staff with some of the implications of automation and allows for controlled implementation of the electronic technologies of the 80s. And, food industry companies must not forget that the real payoff of automation systems and the electronic technologies of the 80s, as applied to information processing and communication, must be measured in terms of providing better service at lower costs.

In conclusion, the success experienced by companies in adapting the electronic technologies of the 80s to their operations is dependent on how well they plan to apply these technologies to their information processing and communication requirements. Moreover, the ultimate benefit of these technologies will only be fully realized if their applications are incorporated within the framework of an integrated company-wide management information system.

Application of the approach I have outlined should help increase the success ratio among companies intending to implement the electronic information processing and communication technologies of the 80s.