

CAREERS IN CONSUMER ECONOMICS -- FINANCIAL SERVICES

Rosella Bannister, Eastern Michigan University¹

ABSTRACT

Careers in consumer affairs in financial services are expected to grow in the 1980s, especially in the area of expert advising in personal financial decisionmaking. A closer link is needed between on-the-job expectations in consumer affairs and academic preparation for employment in the financial services industry.

In 1982, the National Bank of Detroit funded a study to provide recommendations regarding the consumer affairs function within the financial services industry. In addition, the study focused on knowledge and skills appropriate to consumer affairs and the role of higher education in academic preparation and continuing education. A report of the study is available from the Michigan Consumer Education Center, Eastern Michigan University, Ypsilanti, MI 48197.

EMPLOYMENT OPPORTUNITIES

In response to the rapidly changing financial services marketplace of the 1980s brought about by increased competition, deregulation, technology and the growing complexity of consumer choice, financial institutions are expected to offer employment to men and women who have knowledge and skills in consumer affairs. Applicants with a personal finance background are likely to be in greatest demand.

A 1981 study commissioned by the American Banker's Association suggests that there will be a growing market for the services of expert advisors in personal financial decisionmaking, and that the critical consumer financial issue of the 1980s is, and will continue to be, effective money management.

Consumer affairs professionals are employed at a variety of levels in banks, credit unions, savings and loan institutions, investment and insurance companies, and other businesses which provide financial services to consumers.

While the number of senior level position in consumer affairs at corporate headquarters will remain relatively small, the following entry level and career ladder positions may be open to consumer affairs graduates:

- support staff in the consumer affairs department
- positions in advertising, marketing, public relations and community affairs
- positions with direct customer contact such as new account managers, consumer credit, customer service and branch managers

- positions in the growing area of financial advising, with job titles of financial consultants, financial counselors and financial planners.

Consumer affairs executives are often recruited from within the company's own personnel, and consumer affairs graduates with corporate experience in a variety of areas should be qualified candidates for senior level consumer positions.

CONSUMER AFFAIRS FUNCTION

Coordination of consumer affairs is often cited as a major reason for placing a corporate consumer affairs specialist at the senior management level. The function at this level is to strengthen the consumer sensitivity of the financial institution through monitoring and analyzing consumer trends and issues, evaluating corporate consumer products, services and policies, and providing consumer information and education on topics of mutual interest to the industry and its customers. Key responsibilities can be classified as follows:

Evaluation

1. Monitor and analyze consumer trends and issues related to the financial services industry.
2. Analyze customer inquiries and complaints and recommend appropriate action.
3. Evaluate corporate products, products and services in view of consumer trends and issues.

Communication and Counsel

1. Facilitate communication within the financial institution regarding consumer issues and concerns.
2. Maintain liaison with consumer leaders and facilitate communication between the financial institution and consumer networks.
3. Advise management in shaping and evaluating the financial institution's consumer products, services and policies.

Information and Education Programs

1. Provide consumer and economic education programs and materials to employees, customers and other audiences.
2. Assist other departments in the development of customer information and education programs and materials.
3. Encourage and support consumer and economic education in elementary and secondary schools, and in adult, continuing and higher education.

While this study did not analyze the key responsibilities of the consumer financial advisor, the function is to provide assistance to clients in identifying and analyzing their financial goals,

¹Director, Michigan Consumer Education Center

resources and cash flow, and to provide recommendations regarding insurance, investments, tax and estate planning.

KNOWLEDGE AND SKILLS

Based on the key responsibilities identified above, the following knowledge and skill areas are suggested for a consumer affairs specialist:

Consumer Perspective

- Sensitivity to factors affecting consumer decisions at individual, family and societal levels.
- Functional knowledge of consumer behavior as influenced by individual and family financial values, goals, needs, wants and concerns.
- Ability to view consumer needs and concerns in relation to business interests and responsibilities.

Business Perspective

- Knowledge of business principles and procedures appropriate to financial institutions, including:
 - profit motive advertising
 - product planning public relations
 - consumer services business ethics
 - marketing corporate social accountability
- Specialized and technical knowledge of the financial institution's products and services available to consumers.
- Ability to view corporate objectives and policies in relation to consumer needs and concerns.

Personal Finance

- Functional knowledge of the components of personal financial management over the lifecycle, including:
 - resources protecting
 - recordkeeping taxpaying
 - saving estate planning
 - borrowing evaluating financial decisions
 - investing
- Awareness of the impact of technological advances on personal financial management.
- Knowledge of laws affecting personal financial decision making.
- Functional knowledge of factors to be considered when making decisions about the purchase of consumer products and services, including housing, transportation and financial services.

Economic System

- An understanding of the production, distribution and consumption of goods and services within the mixed economy of the United States.
- Knowledge of economic concepts important to business-consumer relations:
 - scarcity competition
 - supply and demand monetary policy
 - price fiscal policy

Awareness of the effect of economic problems on consumers:

| | |
|-----------------|----------------------|
| inflation | public policy toward |
| unemployment | business |
| interdependency | economic growth |
| | balance of trade |

Political System

- Awareness of the structure and functions of government and those forces which influence public policy.
- Knowledge of the legislative and regulatory processes which affect business-consumer relations.
- Ability to analyze the costs and benefits of government regulation and consumer protection laws for consumer and for the financial services industry.
- Understanding of the effects of fiscal and monetary decisions on households and financial institutions.

Communication

- Skills in listening, writing, editing and speaking.
- Functional use of basic electronic media.
- Awareness of the complex interactions between institutions and individuals in areas of conflict resolution, mediating, interdependence and compromise.
- Ability to apply communication skills when working with advisory and focus groups.

Management

- Skills in decision making, problem solving and issue management.
- Ability to think independently, analytically, objectively.
- Ability to develop and implement reasonable goals, objectives, standards of performance and action plans within given time constraints.

Information Processing

- Skill in conducting survey research and analyzing statistics.
- Ability to apply data processing principles.
- Skill in computer operations as related to business-consumer affairs.

Interpersonal Relations

- Skill in teamwork, group planning and decision making.
- Ability to create a climate of cooperation, mediation, compromise and conflict resolution.
- Skills in assertiveness, persuasion, tolerance and negotiation.
- Ability to deal with aggressiveness in others.
- Sensitivity to the special needs of various constituent groups within society.

Teaching and Learning

- Ability to plan, implement and evaluate teaching and learning activities for use in meetings, classrooms, workshops, conferences.
- Ability to develop, use and evaluate educational resources including brochures, pamphlets, newsletters, films, and video cassettes.

MULTIPLE RESPONSE DATA FROM HOUSEHOLDS: WHEN TO COLLECT IT; WHAT TO DO WITH IT

Nancy M. Rudd, The Ohio State University¹
Joel Rudd, University of New Hampshire²

The purpose of this roundtable was to generate discussion regarding the costs and benefits of collecting data from more than one household member. In the past wives have served as the primary spokesperson for households because they were most likely to be available and willing to cooperate. Recognition that wives' responses to surveys may differ from those of other family members has led, in part, to collection of data from more than one household member. However, collection of such data entails considerable added cost. The number of households which can be surveyed is reduced, limiting generalizability. Generalizability is further reduced to the extent that only certain kinds of households agree to cooperate in such surveys. In addition, analytical tools appropriate to taking advantage of the multiple respondent nature of the data may be unavailable or unsuitable. Therefore, collection of such data may be justified in only a small number of cases.

Discussion among roundtable participants focused on two overlapping questions: 1) what kinds of variables can be measured at the household level and how can they be measured? 2) under what circumstances is some measure which reflects the household as a whole necessary and when are data from more than one household member necessary to obtain such a measure?

Objective household characteristics such as income, net worth, and value of total food consumption are usually household level variables. While individual household members may report different values for such variables, a researcher would generally not have any means of determining which values were correct. Thus collection of data from the household member identified as most knowledgeable on the subject of interest would provide better data at less cost than collection from more than one household member.

Subjective variables--attitudes, perceptions, satisfactions--are individual level variables. There was agreement that responses of this nature cannot simply be added or averaged to generate a meaningful "household" variable. There was disagreement as to whether household members could yield a single response (e.g. satisfaction with income) representing the household if interviewed jointly. A common means of generating a "household" variable from two or more household members' responses is to compute a difference score. However, the difference between two measures that each contain some unreliability may contain even more unreliability. Thus creation of valid and reliable "household" variables from individual responses is

very difficult.

That difficulty notwithstanding, participants agreed that there are instances in which a particular research question cannot be answered without multiple respondent data. Most examples given involved questions regarding the effect of agreement or disagreement between spouses on some phenomenon e.g. money management to some subsequent outcome such as level of savings. In contrast, if the researcher were primarily interested in the effect of spousal disagreement on a single member's behavior, attitudes, etc. then that person's perception of disagreement (a single respondent measure) would be more appropriate than a measure of actual disagreement (requiring two respondents).

No conclusions were reached with regard to the issues discussed. The roundtable served to increase awareness of the hazards involved in collecting data from multiple household members in the absence of a clear theoretical rationale and plan for analysis.

¹Associate Professor

²Assistant Professor

INTERNATIONAL PERSPECTIVES ON THE IMPACT OF CONSUMER
RESEARCH ON NATIONAL POLICIES

Jean Kinsey, University of Minnesota
Omer Baybars Tek, Dokuz Eylul Universitesi, Turkey

ROUNDTABLE B.

Attending: Mohamed Abdel-Ghany, Robert Kerton,
Gordon Bivens, Ann Foster, Kristine
Kline, Karen McAlexander, Carolyn
Hudson, Charles Cavagnaro, Howard
Schutz

Dr. Tek suggested we discuss this topic by separating macro from micro consumer issues, the latter being concerned with everyday, individual and relatively short-run problems including product testing and health and safety issues. Under macro considerations are the aggregate problems of hunger and poverty, general economic development, consumer exploitation, and income distribution.

Some mechanism for sharing research results and information about products (hazardous and otherwise) is sorely needed on an international scale. Even recognizing cross cultural differences, it was agreed that individual researchers, manufacturers and responsible governments should make every effort to disseminate (new) knowledge in the interest of: (a) preventing waste through duplicate research efforts, and (b) enhancing the health and safety of people everywhere. Perhaps academic researchers could be more socially responsible by "marketing" their findings to audiences beyond the readers of academic journals.

There was a discussion of a Model Consumer Protection Code being promoted by IOCU and the U.N. This led to a lengthy discussion about the problems of disseminating product information in foreign countries. The "government model" works well when a country has a government structure which is both willing and able to receive and disseminate information to consumers. If, however, such a government does not exist, or if its

motivations are otherwise directed, or if the population is largely illiterate, the "government model" does not work. There exists an important and difficult question about how far the U.S. government can and should go towards ensuring that foreign consumers are fully informed about products imported from the U.S. We can hardly dictate the information policies and actions of foreign governments. However, it was pointed out that we could protect foreign consumers by refusing to export known hazardous products.

Focusing more precisely on the topic of the round table, it was suggested that an international sharing of research techniques and methodologies is of primary importance. A wide variety of types of research can potentially be important to national policy. For example, a survey of consumer's tastes and preferences and household production technology preceding the introduction of new foods into an undeveloped country may predetermine the probability of success or failure of many food aid policies. Research on institution building in undeveloped countries might also have a special relevance for the consumer movement.

Occasionally, policymakers request or even fund research that will provide them with information needed for intelligent policy decisions. In these cases the role of research in policymaking is clear even though the outcome may be obtuse. Most research projects are potentially useful for policymaking, but it is often incumbent on the researcher to ask what consumer policies his/her research findings might impact. Having identified this, it is then socially responsible to condense and forward those findings to the appropriate policymakers and to our colleagues around the world.

THE EMERGING INFORMATION TECHNOLOGIES:
WILL CONSUMER ECONOMISTS MISS THE BIT?

Jill Rader Hayes and Anne Swartzlander, The Ohio State University¹

PURPOSE

The purpose of the roundtable discussion was to provide a brief overview of the critical issues and problems created by the information technologies, to encourage an in-depth discussion of those issues most salient to consumer economists, and to stimulate an exchange of ideas about appropriate action and avenues for consumer economists to initiate regarding the new technologies.

INTRODUCTION

Those innovations most frequently cited as monumental change-agents in our society are the emerging information technologies: telematics, videotex, computers, computer networks, information utilities, interactive cable television, teleconferencing, direct broadcast satellite (DBS), high definition television (HDTV), lowpowered television (LPTV), interactive videodisc, and video cassette recorders (VCR). These technologies bring a deluge of issues and problems including: control, communications policy, the work/leisure interface, global transborder data flow, privacy, security, distribution of channels/spectrum space, human/machine interface, electronic participatory democracy, technological literacy, information rich/poor and enhanced targeted persuasion techniques. The literature is saturated with authorities who predict the information technologies will initiate sweeping social changes greater than the automobile, steam engine, printing press or even the clock.

National and multinational corporations have taken a competitive research and development approach to the diffusion and formation of the new systems. Their focus appears to be fixed on examining what will facilitate the adoption process of the innovations which has been operationalized as "what will motivate consumers to purchase the system/service."

Unlike other governments that have implemented long-range social planning and funded research in this area, the United States government has taken a "hands off" policy. The long-term societal effects have not been sufficiently confronted; therefore, adequate long-range goals and long-range planning do not exist in the United States.

Of the research that has been conducted in this country about home information systems, little is available for public examination. This situation is understandable, considering the great expenses for the corporations involved; however, since these innovations are predicted to have an enor-

mous impact not only on our society, but on a global level as well, contributions from all available sources and disciplines is critical for facilitating any form of long-range planning or accurate overviews, as well as for providing sorely missing inputs and guidelines for public policy issues.

A FEW CRITICAL QUESTIONS

As part of the roundtable discussion the following "Bytes for Thought" were circulated to encourage an in-depth discussion of those issues most salient to consumer economists:

- What social/cultural effects (values, literacy, high tech anxiety, human-machine interface) follow from the changes in information technologies?
- What are the privacy issues involved?
- What are the advantages and disadvantages of electronic transactions for consumers?
- What are the equity issues in access to information (haves and have nots)?
- How will the public good characteristics of information affect public/private production and dissemination of information?
- How can the quality of information be judged? Who is responsible for the content and reliability of information?
- What is information?
- What changes will occur in the consumer information environment (infomercials, advertising on demand, electronic shopping, narrowcasting, local information)?
- How will employment and productivity be affected?
- What are the implications of participatory democracy?
- What are the risks associated with society's dependence on information systems?
- How can we familiarize consumers with the new technologies so they can signal their needs and concerns?

COMMENTS

Feedback information suggested that the primary concerns of this group were focused on questions regarding the quality of information, equal access to information, and privacy issues. Public policy formation, information provision, research and consumer education were the most often mentioned directions for professional involvement.

One of the topics discussed was the potential role of consumer economists and educators in providing much needed relevant consumer information. Another noteworthy suggestion which evolved out of the discussion was the need for a long range, future-oriented perspective and emphasis in examining the total impact of information technologies on consumers and society.

¹Graduate Associates

CONSUMER DECISION-MAKING

Virginia Clark, The Pennsylvania State University¹
Cecelia Thompson, The University of Hawaii²

ABSTRACT

Decision-making is the overarching management concept in consumer education. The models of decision-making provide a means for learners to become successful consumers.

Consumer education is about how individuals can make better choices, and making these choices involves management. Experts in family management have established many approaches to decision-making. All involve identifying and weighing alternatives and selecting the alternative which best meets the needs of the individuals involved. Each approach can be appropriate in certain circumstances and/or for certain individuals.

Four examples of methods for arriving at decisions include the Consumer Decision-Making Model (3); The Value Reasoning Model (4); the Planning Process (1); and the Issues Approach (2).

The Consumer Decision-Making Model is geared to reaching one's highest level of satisfaction. It involves learning about and using cost-benefit analysis to evaluate alternatives and rank them according to their expected net benefit. There are seven steps in this approach:

1. Define the problem and outline some potential solutions;
2. Determine how one's values, goals, and standards may limit one's choices;
3. Seek advice and collect information on the alternatives;
4. Weigh the costs and benefits of alternatives; include time as well as money costs;
5. Make a choice, or postpone a decision until one can clarify steps 1-4;
6. Evaluate and periodically review all major decisions; and
7. Be responsible for one's decisions.

Value Reasoning is a process that deals with practical problems--what to do about...or what to do regarding. The objectives of this process are to help make rational judgments and to provide a method for resolving conflicts. The steps in Value Reasoning are:

1. Identify concerns;
2. Set your goals;
3. Form a plan;
4. Act; and
5. Follow up.

The planning process can be used as an individual or group approach to decision making. Steps in the process include identifying concerns; setting

a goal; forming a plan; and following up on the action taken to carry out the plan.

The Issues Approach offers a method for digging beneath the surface of a situation and identifying the real issue. There are six steps in this process:

1. Define the issues;
2. Identify the interested parties;
3. Gather perspectives;
4. Analyze viewpoints;
5. Form a position; and
6. Make an action plan.

Each of these methods contains elements which are similar or identical. For example, in each the beginning step requires identification of the problem, issue, value or concern. Following steps require varied procedures for identification of alternative solutions and/or approaches to the issue. Action using the selected approach is also included in each process.

All of the processes deal with concepts important in management; values, goals, resources, decision-making, and the consideration of the environment and the impact of environmental components, such as individuals, organizations, families and roles as individuals, on one another.

Use of these approaches, or others which are similar is an important aspect of any program in Consumer Education or Home Economics. Consciously and/or unconsciously most educators make use of them constantly.

References

1. Future Homemakers of America. Handbook for Centered Leadership. Reston, Virginia: Future Homemakers of America, 1982.
2. J.C. Penney Company, Inc. Making a Difference: An Issues Approach. New York: J.C. Penney Company, Inc., Consumer Education Services, 1982.
3. Leet, Don R. and Driggers, Joan. Economic Decisions for Consumers. Belmont, California: Wadsworth Publishing Co., 1983.
4. Metcalf, L.M. Values Education: Rationale, Strategies, and Procedures. Washington, D.C.: National Council for Social Studies, 1971.

¹Instructor of Home Economics Education

²Assistant Professor of Curriculum and Instruction

UNDERGRADUATE AND GRADUATE PROGRAMS FOR CAREERS IN FAMILY FINANCIAL COUNSELING

Panel Discussion organized by Jerry Mason¹ and Virginia Langrehr¹, Brigham Young University

A NEW LOOK AT TRAINING FINANCIAL COUNSELORS: A SELF-INSTRUCTIONAL MODEL

E. Thomas Garman², Virginia Polytechnic Institute and State University

Financial counseling is an idea whose time has finally come! A fortunate byproduct of this nation's two recent recessions has been the increased attention focused upon financial counseling. Simultaneously, there exists among academics a growing interest in how to train those interested in careers in financial counseling.

A model for self-instruction follows a time-honored prescription for successful efforts: awareness of interest, commitment, information search, serious study, practice, and evaluation. One begins with an "awareness of interest" in the field (developing a counseling skill, knowing about a specific financial problem). Next comes a "commitment" to action where one makes up his/her mind that a serious interest exists which needs satisfying. The "information search" often is particularly difficult since this field is only about twenty years old, however, some suggested references are noted below. "Serious study" of information materials leads the self-learner to the next step of practice which may involve on-the-job training or a supervised internship. The final step is evaluation which ideally is conducted by the learner along with a well qualified professional who is usually a financial counseling peer or an academic.

It is a simple model usable for improving education in financial counseling. It can be used in traditional academic settings, in in-service group sessions and in committed self-study efforts. The "Achilles heel" of the model, however, is the process of information search. To resolve that dilemma, dozens of readings could be recommended. Today I note five of significant value: "Developing a Personal Approach to Financial Counseling," "Building Basic Financial Counseling Skills," (both published at Virginia Tech), "The Family in Today's Money World" by Feldman, "Guidelines to Financial Counseling" by Williams, and the Ontario "Manual for Credit Counselors." This bare-minimum library of materials will help those interested in self-instruction in financial counseling.

GRADUATE CERTIFICATE PROGRAM IN BUDGET AND FAMILY CREDIT COUNSELING

Helen E. (Dickin) Mau³, San Francisco State Univ.

This program, initiated in the fall, 1982, is a 17 unit interdisciplinary competency-based program

¹Asst. Professors, Department of Family Sciences

²Prof., Dept. Housing, Int. Design and Res. Mgt.

³Prof., Dept. Consumer and Family Studies/Dietetics

requiring 30 specified undergraduate prerequisite units or their equivalents. The program is designed to educate counselors, adult educators and prospective managers or organizations providing budget and/or consumer credit counseling services.

This program's development was stimulated in 1980 by a request from the executive board of the Consumer Credit Counselors of California following 5 years of mutual cooperation with the Department. This program was developed as a graduate level certificate program to strengthen the quality and productivity of serious debt and budget counseling services.

Major reasons for the choice of a graduate level certificate program are:

.the potential graduate will be screened in the same manner as applicants for the M.A.

.important competencies can be developed more adequately i.e. interviewing skills; adult leadership skills; abilities to negotiate and to speak persuasively with leaders in business, board members, and personnel in collection agencies, to initiate legislation, to appreciate and evaluate input from research, and to experience functioning in a variety of roles and responsibilities as an intern;

.cumulating graduate level internship is possible since there is a prerequisite undergraduate field experience;

.interdisciplinary support of the program exists as coursework from four other departments is approved among the prerequisites and in the graduate program i.e. accounting/finance, adult education, counseling and speech/communications.

.research is encouraged as 13-16 more units, including a thesis, enable achievement of a M.A.

.the program has the qualities essential to qualify its graduates as certified "Family Financial Counselors" by the National Foundation for Consumer Credit (NFCC). The Department's application for this status was the first in the nation to be approved by the National Foundation for Consumer Credit in June 1982.

FAMILY FINANCIAL PLANNING AND COUNSELING - THE BRIGHAM YOUNG UNIVERSITY MODEL

Jerry Mason¹, Brigham Young University

Clearly the need exists for both financial counselors and planners, and this need is expected to become even greater in the near future. The challenge lies in recognizing the unique contribution of each profession and in adequately training individuals for distinctly different careers in planning or counseling. Although there are similarities in the training of planners and counselors as both require an indepth understanding of personal finance, the planner needs to develop a high degree of competency in dealing with personal

risk management, capital accumulation, income taxation, retirement planning and estate transfer. The financial counselor should take courses in family systems theory, personality development, and marital and family interaction. It is essential that the financial counselor be adequately trained in effective intervention techniques so as to be able to bring about beneficial changes in the client's behavior.

The major in Family Financial Planning and Counseling at Brigham Young University builds on the similarities of the two distinct professions with courses in risk management, consumer credit, investments, taxation, and financial analysis. All students also take courses in family interaction, interviewing skills and counseling. The unique combination of Family Resource Management, Family Life Education and Marriage and Family Therapy within one department makes possible the team teaching of some courses. Thus the combination of faculty with training in several disciplines within the Department and the structure of the curriculum has made possible a program that produces approximately 35-40 majors a year in Family Financial Counseling and Planning.

As a result of their unique training, students have found a broad market for their skills. Many have gone on to obtain certification as financial planners. Quite a few have secured positions with financial planning firms; many have established their own businesses. Fewer have found job opportunities as financial counselors, although we expect that more of them will pursue job opportunities in this expanding field.

PROFESSIONAL COMPETENCIES FOR THE CAREER OF
FINANCIAL COUNSELING BASED ON PRINCIPLES OF
RESOURCE MANAGEMENT, CURRENT PROBLEMS OF
CLIENTS AND RESULTS OF EMPIRICAL
SURVEY RESEARCH

Flora L. Williams⁴, Purdue University

Professionals in financial counseling who teach principles of resource management, who are aware of the real problems of clients, and who keep current with knowledge of alternatives and research will be recognized for their contribution for improving the quality of life. Financial counseling is emerging as a career in which professionals can give hope to clients who have resource constraints, economic uncertainty, and difficult decisions. Financial counseling based on principles of resource management helps clients to reevaluate the use of resources and fulfill basic needs whenever there is a crisis or a change in circumstances or goals.

Financial counseling, as opposed to financial planning, has a comprehensive approach to reevaluating use of resources to obtain economic well-being of individuals and families. One of the most important competencies of the financial counselor is to help clients to change consumption patterns or life styles. This is facilitated when counseling

⁴Assoc. Prof. Dept. of Consumer Sci. and Retailing

skills are merged with resource management principles.

The curriculum for the option of financial counseling at Purdue University was developed on these theoretical bases. The purposes of the financial counseling course is to integrate theory with field practice. It is designed to synthesize knowledge obtained in previous courses, acquire knowledge unique to financial counseling, and to apply this knowledge. Currently, 14 models of financial counseling are examined in this course. The option prepares financial counselors to work with clients from low, middle, and high income families.

A CONSUMER PROGRAM FOR ARMY FAMILIES

Nancy Nolf⁵, Military District of Washington, Fort Myer, Virginia

The Military District of Washington Consumer Affairs Program is a comprehensive effort composed of five interdependent components including: consumer education, consumer advocacy, information and referral, program outreach and financial counseling. Much of the work done by the consumer affairs staff is consumer education. Currently, this includes bimonthly consumer education workshops for enlisted wives, a weekly consumer education course for incoming personnel E-1 to E-4, and training programs for commanders and units.

Advocacy for the service member in the military environment takes several forms. One is assisting consumers in negotiating through the complex web of military regulations that can govern and control a service member's life as a consumer as well as a soldier. We also serve as the "consumer voice" in a number of onpost committees and councils. Information and referral services are made available through our consumer education resource center which is a small library where materials and information are collected, cataloged, and made available.

The financial counseling service includes assistance in managing consumer credit and debt; purchasing consumer goods and services; and developing skills in family budgeting and recordkeeping. We assist clients in managing repayment plans and also mediate with client's creditors on an as-needed basis. Clients are counseled and assisted in working through and understanding the consumer decision making process. Through these services they are encouraged to exercise their consumer rights to analyze, question and ask for redress. They are supported as they play active roles in changing the system when it is not responding to their needs.

The five components of the Army Community Services system are interdependent. We strive to maintain a holistic, balanced approach to meeting clients needs.

⁵Consumer Affairs Coord., Army Community Services

RESEARCH METHODOLOGIES FOR CONSUMER POLICY ANALYSIS:
ROUNDTABLE DISCUSSION

W. Keith Bryant, Cornell University¹
R.O. Herrmann, Pennsylvania State University²

Discussion of research methodologies for consumer policy analysis dwelt on three aspects: the types of policy research, sources for models of policy evaluation research, and available data bases for policy research. For typologies and models, two citations were given:

Phillips, L.W. and B.J. Calder. "Evaluating Consumer Protection Programs, Parts I and II," Journal of Consumer Affairs, 13(2):157-186 and 14(1):9-36.

Campbell, D. and J. Stanley. Experimental and Quasi-Experimental Designs for Research, Chicago, Rand McNally, 1966.

Three points came out of the discussion on data sources. The Inter-University Consortium, located at the University of Michigan, has a large accessible archive of data sets. Random telephone surveys probably are the cheapest current consumer survey technique. It is sometimes possible to add a few questions to a national consumer survey quite cheaply.

¹Professor, Consumer Economics and Housing.

²Professor, Agricultural Economics.

USING MICROCOMPUTERS IN CONSUMER EDUCATION

Gerald A. Bird, Virginia Tech¹

THE PERSONAL COMPUTER

Until rather recently, faculty teaching in colleges and universities or in the Cooperative Extension Service had rather limited access to computers. The available main-frame computers were powerful, but not generally suitable for utilization in most classroom teaching-learning situations. Thus, the computer was not generally available to students or Extension clientele.

During the 1970s, technological advances made possible the microcomputer, which has become known as a personal computer. During the past six years, several million personal computers have been purchased for use in the home, business, education, and by Cooperative Extension.

USING THE COMPUTER

The participants in this roundtable session and other consumer educators contacted prior to the session, indicated extensive use of the personal computer in their work. Some examples of computer programs used are listed with the institution in which they are used:

Iowa State University

Cooperative Extension has adapted programs, formerly used on main-frame-computers, for Apple micros. "Dollar Stretcher" is used primarily to help newly unemployed families adjust their spending to their new situation. After the program is run, the client receives the output of the program, pamphlets, and one-to-one counseling. Another program which calculates the costs of owning and operating a car is used with a learn-at-home course, Money Mechanics.

Texas Cooperative Extension

A variety of computers able to utilize the CP/M operating system are being purchased. One of the first programs developed figures the costs of a loan and prints a loan amortization table.

Kansas State University

TRS-80 and Osborne computers are being used in several courses. The Home Management Laboratory is based entirely around the microcomputer, beginning with learning word processing. Other assignments include accounting, evaluating a budget program, a group decision-making simulation, and a management simulation, "The Family Resource Game." Four programs were used as part of another course to (1) analyze the

family food budget, (2) show the effect of inflation on future purchases, (3) analyze resources for retirement, and (4) to analyze family spending. Finally, in another course, students have an option of writing a computer program or modifying an existing program.

University of Missouri

Resident instruction and Cooperative Extension are working together on instructional programs for Apple and IBM computers. The program "Life Insurance Planning" is used in a financial counseling class to determine the amount of life insurance needed. "How Much House Can You Afford?" is used in class as a demonstration, with input from the students to illustrate a variety of financing situations. "NOWACCT" assists in comparing the services and charges of NOW accounts and will compute the average balance. Programs are in development to (1) calculate the cost of raising a child and (2) analyze budgets for use by financial Counselors.

TRENDS

Several identifiable trends were evident from the session. Personal computers are being utilized in the teaching-learning process in higher education and Cooperative Extension in the form of: hands-on experiences, demonstration of methods and techniques, and analysis of personal finances.

Main-frame computers are being supplanted by microcomputers as teaching tools because they are relatively inexpensive, transportable, and capable of running many types of programs. In addition, students being trained for careers in family economics, home management, and consumer studies will be using computers, especially personal computers in their work. Thus, it is important that students learn to use and become comfortable with computers as a part of their program of study.

Finally, Cooperative Extension appears to be moving to the use of personal computers to better serve their clientele, for the reasons stated above.

PARTICIPANTS

Participants in the roundtable session were: Sheran Cramer, Cynthia E. Crawford, Mary Dee Dickerson, Donna L. Dismukes, H. D. Drennan, Jim Evans, Cindy Needles Fletcher, Sue Alexander Greninger, Marta Ma Guevara-Umana, Jamey Hatch, Beverly Henderson, Letta W. Jasper, Joan Kinney, Laurene Larson, Frances Cogle Lawrence, Judy A. Lazzaro, Stewart Lee, Mary Jane Shumard, Pat Tengel, Natalie Thomas, Louise Wesswick, Janet M. Wilson, and Janet C. Wolf.

¹Assistant Professor Family Economics

THE ROLE OF CONSUMER AND FAMILY FINANCE COURSES IN FAMILY STUDIES
AND HUMAN SERVICES PROGRAMS

Jean M. Lown, Utah State University¹

ABSTRACT

Most academic programs in family studies and human service professions do not require any courses in consumer studies or family finance. This roundtable group discussed strategies to encourage the faculty directing these programs to require consumer and family finance courses in their curricula and to facilitate greater interaction with the program faculty.

With the changing and uncertain economy complicating family resource management decisions, human service professionals and family counselors need to be educated to help families avoid or cope with financial problems. Financial problems are among the top contributors to marital discord and divorce, yet few family counselors or social workers are trained in the principles of family financial management. Although these professionals counsel families with financial problems on a regular basis, they often lack knowledge of family finance and consumer principles. The American Association for Marriage and Family Therapy (AAMFT), the major accrediting authority for family therapists, does not require any courses in family finance. How can professionals deal with the whole spectrum of family problems if they ignore this crucial component?

Problems of families do not fit conveniently into narrow categories or disciplines. The allocation of a resource to solve one household problem leads to or affects other decisions within the family environment. The family must be studied as a whole system because its components are nonseparable; that is, it is a system that cannot be reduced to the sum of its parts. If the quality of family life is to be changed or improved, we must find ways to deal with all aspects of family life in terms of the interactions and the relationships between the parts. [1, p. 10]

Roundtable participants discussed strategies to encourage more interaction among professionals in these related disciplines and to encourage colleagues teaching family studies and social work to require consumer studies and family finance courses in their curricula. We need to encourage AAMFT to require training in financial counseling. Potential benefits will accrue to faculty, students, and the public we serve.

The following strategies to achieve these objectives were discussed.

1. Get to know your colleagues in related disciplines. Discuss your concerns related to

students' educational backgrounds and let them know your areas of expertise.

2. Invite family studies and social work faculty and community professionals to speak to your classes. Besides fostering professional and town-gown relationships, their contributions can substantially enhance the learning experience for students.

3. Make your expertise known to the community. Offer to do workshops on money management or aspects of consumer education for community groups, social workers and other professional organizations.

4. Offer evening and extension courses to attract adult students who may be professionals in related fields. Their expertise can enhance the academic experience for students as well as build professional relationships.

5. Develop and team teach courses with social work and family studies faculty such as introduction to financial counseling.

6. Encourage consumer and family finance students to take courses in social work and family studies and vice versa.

7. Join and be active in related professional associations such as the National Council on Family Relations and invite colleagues to join ACCI.

By building bridges with colleagues and community based professionals, fostering student interaction, and participating in related professional activities we can accomplish a number of objectives:

- provide valuable cross disciplinary educational experience for our students.
- increase awareness of the importance of our academic programs among our colleagues.
- bolster student enrollment in our courses and programs.
- provide essential training in money management and consumer education to human service professionals.
- encourage interdisciplinary research and related professional activities.
- foster professional growth and development.

It is time to be more aggressive in promoting our academic programs and professional expertise. Practicing family counselors and academic program advisors cannot meet the financial counseling needs of their clients without adequate training and preparation. We can offer then the opportunities to obtain this preparation or we can suggest that they refer clients with money problems to skilled financial counselors.

REFERENCE

Horn, Marilyn J. and Nickols, Sharon Y. "Interdisciplinary Research: Have We Lost Our Focus?" Home Economics Research Journal, Sept. 1981, 11:9-14.

¹ Assistant Professor, Home Economics & Consumer Ed.

FILMS AND THE REDUCTION OF ECONOMIC ILLITERACY

Ray D. Bernardi, Southern Illinois University--Edwardsville¹

ABSTRACT

Audio-visual instructional materials being produced today for the classroom teacher are available in practically every discipline. Economic education is very fortunate to have the Joint Council on Economic Education which has taken the initiative to produce a new film series in economic education. Called Give & Take, the series of films consists of twelve 15-minute programs in personal economics for grades eight, nine, and ten.

Evidence collected recently has proven, without a doubt, that young people today are highly oriented toward learning from films (or what is the same thing, video presentations). Film is rapidly becoming in the twentieth century what the popular low-priced pamphlet was in the seventeenth century--an important influential vehicle by which "special pleaders" (Schumpeter's term) bring their case before the public (3, p. 1105). Educators should recognize this phenomena and take advantage of its pedagogical importance. There is an ancient Chinese proverb that says, "Tell me, I forget; show me, I remember; involve me, I understand." With films, the teacher has enabled students to reach the second level of learning. It may be true that a picture is worth a thousand words. Look, listen, and learn are the watch words when using educational films.

There are delicate reasons why schools may be reluctant to take on economic education (1, p. 331). However, the so-called "dismal science" may turn out to be one of the most relevant courses in the curriculum, provided that modern teaching techniques designed to maintain student interest are utilized. The "Theory Y" teacher who believes that students enjoy learning under favorable conditions will find films to be an excellent source of learning material.

NEW FILMS AVAILABLE--GIVE AND TAKE

Several agencies have been quite active in producing quality educational materials over the years. In fact, with very little effort, the teacher can find more educational resources than they have time to sift through. Good films may be difficult to find. The Joint Council on Economic Education recently produced a new film series that may be just what many teachers are looking for. Developed for students in grades eight, nine, and ten, Give & Take programs dramatize problem-solving situations that show students how economic concepts--such as opportunity costs, supply and de-

mand, and taxation--relate to their daily lives. The series is intended for use in consumer education, economics, business education, home economics, social studies, and other classes where personal economics material is presented.

Teenagers are active participants in our economy. They are consumers forming a large market for many products and services. They are producers, working at full- or part-time jobs. Teens are also at a stage in their lives where they must make important decisions: Shall I drop out of school? What career shall I pursue? How active a citizen do I wish to be? These are decisions that have long-term implications for the individual's economic well-being and for the economy as a whole (2, p. 3).

Give and Take was developed by the Joint Council on Economic Education, the Canadian Foundation for Economic Education, and the Agency for Instructional Television, in conjunction with a consortium of 45 education agencies in the United States and Canada. Additional support was received from 24 corporations and foundations and from the Office of Consumer's Education, U.S. Department of Education. Actual production was under the supervision of AIT, JCEE, and CFEE by the Educational Film Center (EFC), North Springfield, Virginia; Bradshaw, MacLeod & Associates Ltd. in association with ACCESS (Alberta Educational Communications Corporation), Calgary; and The Film Works in association with TVOntario, Toronto, Canada.

Each lesson in the series consists of a 15-minute television/film program with teacher's guide materials to provide ideas for classroom introduction and follow-up. Each program dramatizes personal economic problems relevant to the daily lives of young people. Teenagers are "stars" of each program, but special visuals are used in some programs to emphasize selected economic concepts. Some programs end with a question to provide stimulation for class discussion. Other programs depict the characters arriving at their own best solutions (2, p. 3). High school age actors were used because junior high students are likely to attach more importance to the message being presented than if students their own age were used.²

The guide materials for each lesson include a Commentary, designed to provide additional theory background for the teacher, and Suggestions for Classroom Use. The Commentary consists of explanations of the main concepts in the program and a vocabulary list with definitions.

Nine of the twelve programs have Student Handouts accompanying the lessons. These handouts are designed to build thinking skills and to personalize

¹Associate Professor of Business Education

²Interview with John Clow, JCEE Liaison for the production of the Give & Take film series, Kansas City, Missouri, March 18, 1983.

the lesson. The handouts encourage follow-up classroom discussion; there may be more than one correct answer to a problem or activity.

Although there is a logical sequence to the programs, each is specifically designed to stand alone so that they can be used in any order. No prior knowledge of economics is needed, although students familiar with Trade-Offs,³ a film series for ten- to thirteen-year-olds, should be able to analyze the problems in a more advanced manner.

The programs may be ordered from the Agency for Instructional Television, Box A, Bloomington, Indiana 47402; telephone (812) 339-2203. The complete series is available to all educational agencies which participated in their development. Therefore, if your state participated, you will have free access to the master tapes which you can acquire and have copied in your school district. Contact the AIT to find out whether your state participated.

As soon as your district has acquired the series, please request that a Center for Economic Education near you provide a workshop to orient teachers in how to effectively use them. A special Give & Take Workshop Leader's Handbook has been developed that is loaded with training materials which will help teachers make maximum use of the films.

SUMMARY

Good teachers are constantly looking for innovative and interesting ways to present subject matter to their students. Filmmakers have demonstrated the power of their medium to transmit scientific information about the economy in an interesting and accurate manner (3, p. 1013). Economists and teachers have innovated with graphical presentations throughout history and there is every reason to believe that they will continue, as they have been doing, to utilize the visual potential of film as well.

REFERENCES

- ¹Economic Education Experiences of Enterprising Teachers, Joint Council on Economic Education, in Education USA, June 30, 1980, p. 331.
- ²Freeman, Vera (principal guide writer). A Guide to Give & Take. Bloomington, Indiana: Agency for Instructional Television, 1982.
- ³Moss, Laurence S. "Film and the Transmission of Economic Knowledge: A Report." Journal of Economic Literature, 1979, 9.
- ⁴Popham, Estelle L., Adele F. Schrag, and Linda Blockus. A Teaching-Learning System for Business Education. New York: Gregg Division, McGraw-Hill Book Company, 1975.
- ³A 15-film series in economic education developed and produced in 1978 by the same group which created Give & Take.

ROUNDTABLE: PATIENT EDUCATION ACTIVITIES FOR PRESCRIPTION DRUGS

Margaret Charters, Ph.D. and Ina Sue Brown, Syracuse University

There is increasing public concern about the lack of effective dialogue between patients and health professionals about prescription drugs. Fifty percent of all prescriptions filled are not taken correctly. In December 1981, a FDA plan to test patient package inserts for ten prescription drugs was rescinded. It was held that the private sector could implement a voluntary plan more economically and efficiently.

The purpose of this roundtable convened one year later was to evaluate private sector initiatives in prescription drug patient education activities.

Two national groups are providing leadership in this area. The Committee on Patient Education (COPE) was appointed in January 1982. Chaired by FDA Commissioner Hayes, its members are FDA bureau administrators. Its charge is to "coordinate government efforts to educate consumers about prescription drugs and to serve as a catalyst for private sector initiatives in this area." It has a Patient Education Resource Center (PERC) and sponsors research to provide baseline data on the present state of consumer prescription drug information. It has initiated a public service advertising campaign. The National Council on Patient Information and Education (NCPIE) met first in October 1982 chaired by Paul Rogers. This is a private consortium of health care providers, consumers, industry and others committed to communicating prescription drug information to patients.

Communication between patients and health care professionals for quality health care requires work on three fronts:

First, patient education materials and activities must be available in usable and useful form. Participants reviewed a display of materials obtained from 67 pharmaceutical companies, medical, pharmacy and other organizations. Categories were: disease discussion only; general discussion with space for specific physician instruction; medication scheduling assistance; patient "how to take" information with specific drug information for the physician only; mini-package which combined general disease information and specific information for related drugs for the patient; patient package inserts and patient medication information for individual drugs; comprehensive programs of patient medication information such as that of the U.S. Pharmacopoeia, Pharmex, American Association of Retired Persons, and the American Medical Association; education materials from the Elder Ed program of the University of Maryland; new technology and media materials including PSA's, advertisements and hot lines.

The review of new materials reflected major investments in patient education materials. A broad range of usefulness and usability was exhibited. The readability levels of PMI's varied from grade 5.66 to 14.

Second, the information and materials available must be distributed. This is very limited. Studies show 35% of patients still get no drug information from physicians or their office; only 37% get oral information from their pharmacist. Only 6% of consumers receive written information from their physicians; 14% from their pharmacists. A survey of physicians in Syracuse, New York, in March 1983, revealed that only 8.6% of doctors in the area were using the American Medical Association PMI program. AARP includes material in all mail order drug prescriptions.

Third and finally, materials must be used. Studies show that only 2-4% of patients request information from their doctors or pharmacists. There is a long way to go.

Quality health care requires that medication be properly taken and administered. All sectors must cooperate. Consumer involvement has been lacking in the mix. Roundtable members made the following recommendations:

- (1) Increase involvement of consumer professionals, as part of the private sector, to help open up communication between patients and health care professionals. They have tended to delegate responsibility to FDA for this function.
- (2) Expand patient advisory councils for medical centers by cooperation between medical and consumer organizations.
- (3) Promote cooperation of pharmaceutical companies and consumer professionals to field test patient education materials.
- (4) Educate consumers to ask for information to contribute to the quality of their care. This could change the dynamics of medicine and provide the incentive for physicians to provide education, lead to increased instruction in patient communication in medical schools and perhaps even affect the criteria for medical school admission.
- (5) Increase representation of consumer organizations in NCPIE through the membership of ACCI and additional consumer groups.
- (6) Explore media other than print as means of patient education and information. Continue to review readability levels of print media.
- (7) Examine the fine line between advertising and information from the consumer point of view.

The roundtable had representation from the pharmaceutical manufacturers' association, the medical profession and the Food and Drug Administration as well as university faculty, teachers and students in the consumer field.

INTRODUCTION TO VIDEOTEX: WHERE IT STANDS

Robert E. Widing II, Ohio State University¹
W. Wayne Talarzyk, Ohio State University²

ABSTRACT

In recent years there has been a growing awareness of and interest in systems designed to deliver text, graphics and other information services to consumers using television or other video devices for display. This paper is designed to provide an initiatory review of this developing industry called videotex. The information presented is based on four working papers, two research projects involving interviews with some of the key participants in videotex development, analysis of various articles and reports which have been published on the topic, and the authors' personal involvement with videotex projects, seminar presentations and conferences.

INTRODUCTION AND OBJECTIVES

Videotex can be described as the generic term for a developing, interactive medium that delivers text and visual information directly to consumers. It can be used to reach either mass or tightly targeted audiences in both home and business markets. The user interacts with the system via a handheld keypad, pushbutton console, or keyboard. Desired information is retrieved by user command from one or more public/private data bases through telephone lines, cable or broadcast signals, with text and graphics displayed on a television screen or other video device.

Viewed as the product of a marriage between computer and communications technology, videotex can be aptly described as a time and space system. The concepts and services which have been advanced seem limitless and future applications appear to be hindered only by the imagination and regulatory officials.

Videotex is but one of many emerging technologies often referred to as the new electronic media. Beyond videotex, these include videocassette recorders, videodiscs, an array of futuristic applications through two-way cable television and fiber optic telephone lines, direct broadcast satellites and personal computers. The new electronic media, however, should not be viewed as containing independent or distinct forms. While in some

instances they may compete with each other, for the most part the entire package of technologies should serve to supplement and reinforce one another. Indeed, to a significant extent they are interdependent.

In essence, these technologies have the capability to provide consumers with unparalleled independence and discretion over their affairs. The new electronic media provides alternatives for, or, in many cases, augments current modes of entertainment, financial transactions, shopping, work, travel, personal protection, information gathering, and communicating. In sum, the new electronic media forms a comprehensive and complex network of electronic workhorses which may provide the structure for the home of the future.

Videotex is, perhaps, the most exciting and feared of the new technologies, for it not only has the potential to replace and perform a vast array of everyday functions, but also to challenge and alter the current social, economic and political order. Most of the new technologies simply augment current lifestyles and operating systems. Videotex may act to fundamentally change them. High order change of this nature is always accompanied by fear, resistance, and, in at least some sectors of business and society, losers. The transition which futurists see occurring over the next twenty years through videotex and other, perhaps superseding technologies, will undoubtedly bring painful effects upon the vested interests of today, as well as a number of challenging questions of a moral, societal, and ethical nature.

The objective of this paper is to provide an introductory review of the videotex industry. It is specifically designed to enlighten the uninitiated student or business person on the issues, current status, and future prospects of videotex. To achieve this end, the area of concentration will not be technological. Rather, technology will be addressed only when that topic will serve to illuminate problems, conditions, or opportunities. Hopefully, after examining this study the reader will have a general framework in which to analyze and assess the prospects of this growing and dynamic field.

The remainder of the paper is organized into six basic sections. The first two sections will be devoted to an introduction to videotex and its two generic forms, teletext and viewdata. The third section will examine environmental trends which should facilitate videotex adoption. The fourth section will discuss selected issues and problems facing the industry. The fifth section will focus on the market characteristics of current and potential videotex adopters. The final section will

¹Ph.D. student in Marketing who has accepted the position of Assistant Professor of Marketing at Texas Christian University beginning in the Fall, 1983.

²Chairman and Professor of Marketing.

offer the authors' concluding comments and perspectives.

TELETEXT

Overview

Teletext is the broadcast form of videotex and refers to either one-way, non-interactive transmissions, or in its more widely viewed form, simple interactions between the user and broadcast pages. Teletext can be broadcast over virtually any medium including television signals, radio frequencies, one or two-way cable, and microwave and satellite transmissions. Due to the lack of a hard wire connection, except for cable delivered teletext, the user cannot be charged for receiving teletext transmissions; further, only pages of information can be delivered to users as there are none of the interactive capabilities required for services such as in-home shopping or banking.

Revenue streams to the broadcaster to support teletext can be gained from advertising pages, supplements to regular television advertising messages, passive advertising such as a firm's logo appearing on information pages and local/network television subsidization for public service purposes and to expand audience bases.

Teletext can be divided into at least two general categories, interval and full channel teletext. Although full channel teletext certainly has commercial potential, it is interval teletext carried over television signals which should be widely available to consumers in the shorter term. Therefore, this paper will limit its scope to include only interval teletext.³

Interval Teletext

Interval teletext is broadcast in "piggyback" fashion on regular television signals. This is made possible by placing (called multiplexing) the teletext page stream into the excess capacity of the television signal. All television broadcasts have this excess capacity as a portion of the television screen is left devoid of programming for technical reasons. This small unused portion of the 525 lines (in the U.S.) on the television screen is called the blanking interval -- the black bar which can be seen when the picture rolls on an improperly adjusted television set -- and it provides the vehicle for a number of interval teletext forms. Following is a description of three interval teletext applications.

Interval teletext forms include overlay, boxed and simple-interactive teletext. Overlay

teletext enables the message to be laid on top of regular programming and both are viewed concurrently. Currently, the most common application for overlay teletext is closed captioning for the deaf.

Boxed teletext refers to teletext shown through a rectangular box figuratively "cut-out" of a portion, usually the lower third, of the television screen. Headline news, sports, weather and other information flows across the box, while the viewer concurrently watches regular programming. To receive overlay or boxed teletext the viewer must have a small decoder which easily attaches to the television set and which is controlled by an on/off switch.

The remainder of this interval teletext discussion will concentrate on the third form, simple-interactive teletext. Hereupon simply referred to as teletext. This form differs significantly from the two just described as the user may actively select the information he desires, as opposed to passively receiving what the broadcaster elects to send. In this case, when the decoder is turned on teletext replaces regular programming. The user must also have a small hand-held keypad, which is attached to the decoder, in order to demand desired information pages. Following is a description of the British Ceefax teletext system which currently has over 214,000 users [7, p. 16], as described by Joseph Roizen [4, p. 9].

A viewer with a teletext receiver has a control keypad that resembles a small hand calculator. By pushing certain buttons, the viewer can command the home receiver to shut off the regular TV program on the screen and to display instead 'pages' of . . . information that is constantly updated by the TV studio. An index page (or pages) tells the viewer what information is available by page number. Selecting the appropriate page will bring the viewer such items as news headlines, sports results, weather forecasts, entertainment or shopping guides and a variety of other public interest material.

A problem exists, however, with interval teletext which primarily affects the simple-interactive form. The excess capacity of the blanking interval is small which limits the amount of information that can be delivered in a reasonable period of time. Since the pages in a teletext "magazine" are broadcast sequentially and the entire magazine page stream continuously, the greater the number of pages in a magazine leads to a longer waiting period for any one page. For the 100 page⁴ magazine in the Ceefax system the average waiting period is 12.5 seconds, with the longest waiting time being 25 seconds. Therefore, even with more

³For a review of full channel teletext see Talarzyk and Widing, "Introduction to and Issues with Videotex: Implications for Marketing" College of Administrative Science, Ohio State University Working Paper Series, WPS-14 (January, 1982).

⁴Each page or "screen" can contain about 75 words, excluding graphics.

sophisticated decoders that contain some internal memory, it is felt by most industry participants that the upper limit is about 200 pages, with under 150 desirable to enhance user convenience.

In sum, while the user has some choice over the information he receives, the range of information available cannot compare with the depth or breadth of information in viewdata systems. Following is a brief description of selected interval teletext activities in the United States.

Teletext Activity

NBC and CBS have each begun broadcasting separate teletext magazines that should be publicly available in the Spring of 1983. Both firms are currently awaiting FCC approval for their respective broadcasts, which is expected to be granted in April, 1983.

In order for consumers to receive one or both magazines, however, the networks' local affiliates must elect to pick-up and pass-on the broadcast in their areas. Further, decoders and keypads are not yet readily available as U.S. manufacturers, until this time, have had no potential market to produce for. Therefore, CBS and NBC have begun broadcasting their respective magazines despite no available audience in order to spur the manufacturing and retailing of necessary equipment, and to encourage local affiliates to offer teletext in their areas. Decoders and keypads combined are expected to be priced under \$250 at introduction. However, this is expected to drop dramatically over the next several years to a \$100 to \$150 price level.

The 100 page CBS magazine (NBC's is very similar) features both hard and soft news, each containing about 50 pages each. The editorial staff keeps the magazine highly current through 24 hour a day updating. The hard news section includes headline stories, business and financial news, sports reports and scores, and national weather reports. The soft portion consists of a leisure section that contains feature stories, consumer tips, games, quizzes, horoscopes, recipes and the like. It is anticipated that many local affiliates will not only pass through the national magazine to consumers, but augment it with a local teletext magazine as well. The cost to affiliates for the equipment necessary to do this ranges from \$75,000 to \$200,000 depending upon the desired level of sophistication. The affiliates would "round-out" the national broadcast with local news, traffic and weather reports, and so on.

KEYCOM Electronic Publishing, a jointly held concern by Field Enterprises Inc., Honeywell and Central Corporation, began broadcasting a similar magazine in November, 1982. Its 100 page National KEYFAX Teletext Magazine is carried over the blanking interval of Ted Turner's WTBS "Super Station." The total potential market for this cable delivered system is numbered at approximately 24 million households.

KEYCOM's approach to marketing, however, is greatly different than the national networks.

KEYCOM will market through cable television systems both the teletext service and the keypad/decoder as a package for which the consumer is charged \$19.90 per month. The hardware connection, in-place billing and servicing departments of participating cable companies, and the equipment/magazine package approach make the subscription fee feasible. KEYCOM has set a target subscriber base for the first 30 months of operation at 200,000 households.

Teletext Potential

Teletext is well suited to provide very general information which is of wide appeal and highly time perishable. While some possibilities exist to segment markets on a fairly gross level for such variables as geographic location, time of day and channel watched, teletext is a mass market, not a focused or individualized medium. Although the broadcaster is somewhat handicapped by the page limitation problem, this drawback may turn into an asset by narrowing the scope of his activities, thereby enabling the database to be kept highly current with "least common denominator" type content at a relatively low cost.

The major barriers to diffusion at this time are the cost and availability of decoders and keypads. Loveless and Robinson report [2, p. 30] that a survey conducted by Wasatch Opinion Research Corporation indicated that with equipment priced at \$50, 67 percent would purchase, 42 percent at \$100, 15 percent at \$250, and 4 percent at \$500. This would suggest that mass market penetration would be significantly hindered by the \$200 to \$250 price level expected at introduction. However, anticipated price declines of 50 percent or more over the next few years would ease this problem significantly. Further, televisions are expected to be introduced within the next several years which feature a built-in teletext option for under \$100. Finally, the monthly lease charge approach depicted in the KEYCOM system shall also help ease teletext into cable equipped homes.

The best estimates, therefore, are that this technology may achieve mass acceptance providing equipment costs fall to between \$50 and \$100, if information is tailored to exploit the medium's strengths, if standards are adopted to facilitate usage across teletext channels and systems, and if available revenue streams can be developed through creative applications. There is some question, however, as to whether teletext will survive the rush of viewdata systems which are currently emerging.

Providing teletext gets off the ground and penetrates the mass market ahead of viewdata, the consensus in the industry seems to be that teletext has enough advantages to survive. There are a number of reasons for this viewpoint. First, the level of information available through teletext may be adequate for many consumers and usage situations. Second, much of the needed equipment, already used for standard television transmission, is in place. Third, it will continue to be characterized by no or low cost (outside of the initial equipment purchase) to the user and relatively low cost to the broadcaster. Finally, the

system lacks complexity, requiring little or no skill on the part of the user. Essentially, teletext serves as an extension of current viewing habits and lifestyles, as opposed to requiring some behavioral change on the part of the user. In sum, teletext should serve to complement, rather than directly compete with viewdata.

The remainder of the paper will for the most part be concerned with viewdata applications, primarily because of the far reaching implications of that medium when compared to teletext. While teletext is an important component of the new electronic media, it is viewdata which appears to promise sweeping challenges, problems, opportunities, and societal change.

VIEWDATA

Overview

Viewdata describes two-way, fully interactive systems capable of giving the user access to virtually an unlimited number of pages of information (text and graphics) and a wide array of services. The services may include in-home shopping and banking/bill paying, electronic mail/messaging, security and other personal protection systems, games/entertainment, energy management systems, and personal computer enhancement. While information pages are used in a number of the above services, a great number of "pure" information categories may be offered as well. These may include all or portions of newspapers and magazines, restaurant reviews/menus, independent product/service reports, transportation schedules/information, encyclopedias, specialized information services, community and public interest listings, employment search, and so on.

Viewdata is far more complex and capital intensive than teletext systems. Teletext simply requires the broadcaster to organize an editorial staff to create and keep the relatively small number of broadcast pages current. Viewdata systems, depending on their width and depth of services, may require the system operator to maintain information pages reaching to the millions, as well as to organize an operation entailing possibly hundreds of independent service and information providers. The interdependencies, cost, and sheer size of the operation require a major commitment by firms with wide and varied skills.

Viewdata subscribers are connected to a system by two-way cable or telephone lines. The user demands information or services by using a keypad, terminal with keyboard, or a personal computer. A modem/decoder attached to the demand device enables the user to send and receive information over telephone or cable lines. This hard wire connection allows system operators to monitor usage and charge the consumer for content accessed in any number of ways.

System Types

Generally, there have been two types of viewdata marketing approaches, system dependent and system

independent. System dependent viewdata binds the user to a particular system by packaging and marketing equipment and services together. The equipment provided would usually be compatible only with that system operators service. The user is limited, therefore, to a particular system operator's data bases and content providers. This lack of compatibility may be intentional so subscribers are kept captive, or simply be the result of the fields state-of-the-art. Regardless, the offerings of a single system operator may be more than enough to satisfy many consumers. Cable based systems tend to follow this approach and some telephone based systems such as Viewtron (discussed in the "Activities" section below) have adopted it as well.

System independent viewdata enables the user to choose and, if desired, switch viewdata system operators with ease. The user need own a modem and terminal or personal computer, however, which requires a significant cash outlay, usually starting around \$500 and depending upon power and optional equipment, ranging up to \$6,000. Phone-based services such as those offered by Compu-Serve, The Source and Dow Jones are examples of system independent viewdata. The growing number of personal computer owners are natural markets for these services. The user cannot, of course, access those systems requiring system dependent equipment.

Keypads, Terminals and Personal Computers

Keypads used to demand information have been primarily used in system dependent viewdata. The keypad generally requires users to utilize the hierarchical, "menu-free," information search format. While simple in design, this method of obtaining information is time consuming and provides ample opportunity for error. On the other hand, the consumer does not need a sophisticated skill level to use this system. The keypad approach is relatively low cost and at this point appears appropriate for the introductory stage for the mass, computer-unskilled consumer markets. Without a keyboard, however, it is impossible to have "true" messaging capabilities, to utilize alternative systems, to perform enhanced functions, or to quickly and efficiently access data. Currently, however, all four of these capabilities may be unnecessary for many consumers.

Terminals and keyboards provide the user increased flexibility, quicker access to information/services and enhanced capabilities. The more difficult to learn but highly efficient keyword search format is usually offered in conjunction with viewdata using terminals. In addition, the keyboard also allows for "true" electronic messaging and mail. The terminal as a demand device has been used in both system dependent and independent viewdata.

The personal computer enables the user to go beyond viewdata by providing information storage, the opportunity for personal programming and use of independent software packages, and advanced computational capabilities. Firms such as Compu-Serve also offer personal computer enhancement by

providing subscribers with the power and programs of their large scale computers. Further, personal computers and software packages can be used in conjunction with videotex data bases. For example, the Dow Jones News/Retrieval service offers both archival and highly current financial information on firms, industries and markets; Dow Jones software packages and the users personal computer can combine to analyze this data in a variety of ways. The personal computer has been restricted to the system independent category. Therefore system dependent services would be unavailable to the user desiring to use his personal computer.

Telephone versus Cable

Both telephone line and cable delivered viewdata have distinct advantages and disadvantages. A major problem with cable is that while the current household penetration rate is approximately 34%, only about a third of that figure includes the two-way, interactive cable required for viewdata.

A second difference is that cable system operators are not common carriers, which would prevent an independent system operator from using cable. In effect, franchises granted to cable systems by local governments provide for local viewdata monopolies. Wide-band cable does have many advantages over telephone lines. Providing that the interactive cable has been carefully installed, it allows for much faster and more reliable data transmission than telephone lines. Second, communication costs are largely fixed regardless of volume. This enables the system operator to use flat monthly pricing policies, as opposed to the highly usage sensitive pricing strategies necessary for phone based services. Third, cable delivered viewdata doesn't tie up the family phone. Finally, wide band cable should be better suited for providing services such as telemonitoring due to its larger capacity.

Another significant advantage to be gained from cable will be attained as central business districts are wired. Currently, a significant bottleneck in electronic information flows exists when moving information the "last mile" That is, transmitting information from, say, New York to Los Angeles can be accomplished at tremendous speeds/volume via satellite and microwave transmission or even dedicated telephone lines; however, moving information from the Los Angeles receiving point out to where it is needed, in homes and offices, requires using telephone lines not designed to carry heavy loads. Wide band cable could ease this capacity constraint and should be an important link in overcoming the "last mile" bottleneck.

During much of this decade, however, the ubiquitous phone system should serve to carry much of the viewdata carriage load. Cable carriage will become increasingly important, nonetheless, as two-way cable is laid and household penetration rates reach the 50% or greater levels projected for 1990. In the early to mid 1990's, however, telephone companies should have replaced much of the currently used pair-wire lines with fiber

optic lines. Fiber optic lines can do everything that cable can do, only better. Until that time, cable and telephone lines should tend to supplement one another, and even be used together in hybrid systems, rather than engage in active competition.

Revenue Sources

For the system operator revenues can be obtained from consumers through start-up or installation charges, equipment lease or sale income, and fixed period or per minute usage fees. From content providers (CP's) system operator revenue sources include page creation, storage and updating charges, percent-of-sales income from retailers, per inquiry or lead fees from advertisers, and equipment sale or lease income. Cable operators may be willing to provide certain viewdata services at a loss or less than full cost with expectation of increasing the number of regular cable subscribers and by boosting advertising sales through a larger subscriber base.

Revenue for the CP includes increased sales of products (goods and services) both over the system and through regular channels, CP's may share in system operator usage fee revenues, financial institutions would use viewdata to reduce processing costs and garner revenues from transaction charges assessed to consumers and CP's, and other CP's would probably receive revenues based on the usage of the information/services.

Viewdata Applications

"In 1979 there were approximately 30 viewdata experiments and operational systems internationally, today (October, 1982) that number has more than tripled," [1, p. 4]. In addition there are over 300 private videotex systems either installed or on order [3, p. 4]. The amount of capital invested in tests and publicly offered systems alone has been estimated to be well in excess of \$500 million [7, p.1].

In North America, videotex-like systems began to emerge in the early 1970's when Dow Jones began offering business and financial databases to the business and investment community and the Mead Corporation introduced its Lexis system to the legal profession. In the late 1970's CompuServe (owned by H&R Block) and The Source (owned by Readers Digest Assoc.) entered the videotex arena with services designed for the household market and they quickly became known as the "Information Utilities." These early entrants have been joined by scores of other firms and organizations who have conducted experiments, field tests and/or brought public systems to the marketplace.⁵ Some

⁵For an in-depth review of selected activity in the field, please see Talarzyk and Widing, "Viewdata Project Reviews." The Ohio State University, College of Administrative Science Working Paper Series, WPS-16 (February, 1982) A revised and expanded version is forthcoming.

of these firms include Knight-Ridder Publishing, AT&T, CBS, American Can, Chemical Bank, Banc One, Citibank, Chase Manhattan Bank, ADP Inc., Cox Broadcasting Corp., The American Farm Bureau and Times Mirror. Following is a very brief overview of the Viewtron market test which is intended to give the reader a flavor of the activity in the field.

Knight Ridder Publishing's subsidiary, Viewdata Corporation of America, has completed concept trials and field tests for its Viewtron system. Knight Ridder will have invested in excess of \$25 million by the start of service. The test market phase will begin this Fall in the South Florida area with a subscriber base initially expected to be in excess of 5,000 households. AT&T's American Bell subsidiary will lease dedicated terminals to subscribers, although the terminals may also be purchased for about \$600. The service is expected to be priced at approximately \$25 per month, not including terminal lease charges. Viewtron will offer an array of shopping, banking, entertainment, information and other services from scores of content providers. Current plans include rolling out Viewtron into 11 other major markets during 1984/1985, providing the South Florida market test proves to be successful.

Viewdata Potential

Relative to teletext the advantages of viewdata include high level interaction and user controlled information searches, from moderate to high speed data transmission (with interactive cable being far faster than phone lines), a virtually unbounded number of services, information that is both broad and deep, widespread commercial applications, and flexible pricing options.

Viewdata can offer information/services of both a general and specialized nature. Indeed, as a demand medium there is ample opportunity for consumers to self-segment and tailor their information and service needs to their individual requirements. However, most information and services geared to consumer markets will be packaged at various levels of specialization and comprehensiveness to enhance the ease of usage and digestibility, as well as to satisfy price/specialization trade-offs. Therefore, viewdata should experience growth through a focused approach using the principles of market segmentation.

ENVIRONMENTAL TRENDS

Rising Costs

Rising costs in many affected industries may serve to give a boost to the videotex solution. For example, within the banking industry it is estimated that the true cost of check processing ranges from \$1.00 to \$1.50. This and other traditionally low cost banking services are expected to rise sharply due to the labor intensive nature of such activities over the next several years. Similarly, other industries such as publishing and retailing are experiencing squeezed profit margins due to rising energy, raw materials, labor, and building

expenses. By electronically providing information, retail catalogs, bill paying, and other services, the prices to consumer should be able to be kept lower. Indeed, computer and communications technologies are on a declining cost curve, while most industries are experiencing upward cost pressures. Over time, videotex systems should increasingly become cost effective.

Demographic and Life Style Trends

Two income families, single parent families, and later marriages (more single adults): These trends reflect a time poor consumer who would directly benefit from the convenience and time saving characteristics the emerging technologies offer.

Increased emphasis on "own time": The value consumers place on personal time is increasing. Activities which are "less than fun" are ideally suited to be substituted for by videotex. In-home banking and shopping will be directly affected by this dimension.

Life Simplification/instant gratification: Many consumers today want things now, with little or no inconvenience. These consumers are well suited to the videotex characteristic of providing a response immediately and on demand. In addition, needs of consumers desiring self-tailored life styles and an increased amount of control over their lives can be satisfied through the videotex option.

Growing computer consciousness: From grade school children through middle aged office workers, exposure to information processing equipment and computer technology is growing. While a portion of society views computers with fear and distrust, this number is decreasing.

Energy price and availability: Videotex, to a significant degree, can substitute for consumer travel. The substitution of telecommunications for time, energy, and travel is viewed positively from both economic and national security perspectives.

Growing information appetites and overloads: Videotex offers comprehensive information from many sources, organized and edited to the viewer's needs. If properly packaged, consumers will receive only the information they want, when they want it.

Rising crime and security concerns: Lower cost alarm systems made possible by videotex systems can provide burglar, fire, and medical protection to the mass market. Public opinion polls frequently cite the increasing crime rate as one of today's major concerns.

Need for low cost and effective messaging capabilities: Electronic mail, bill paying, and other information services can circumvent the mail system and should prove to be an increasingly attractive alternative to the post office.

Life-long educational process: Non-traditional students may continue their formal and informal education through text and tele-courses, without the time and inconvenience problems associated

with going back to campus.

A great many other social trends and problems can be satisfied or solved through videotex and related technologies. Telecommuting and teleconferencing are two such related concepts which will grow in importance throughout the 1980's. In the following section, selected issues of importance to videotex development will be advanced.

VIDEOTEX ISSUES

Value to Consumers

There are some skeptics who question whether currently available alternatives cannot perform many of the in-home/at-work functions touted by videotex proponents, often better and at a lower cost. Banks have Pay-by-Phone services; mail order firms often offer toll-free numbers; comparison shopping can be accomplished by multiple catalogs with far better quality pictures compared to computer graphics; a newspaper is much cheaper, portable, and easier to read; information which is deep and specialized is offered by magazines, newsletters, libraries, and through other means; electronic messaging and mail can be accomplished by telex, current viewdata-like systems, and a phone coupled with recorder; computer enhancement can be attained through time sharing systems; electronic games can be purchased and played through their own systems.

What videotex offers is all of the above functions and many more carried through one source, when, if packaged correctly, offers many performance benefits unachievable through any other means. In addition, assuming most of the above services are desired by the consumer, the overall price should be more cost-effective than with each service offered and priced individually. This is not to say that viewdata systems will replace all currently available and potentially competitive forms. On the contrary, videotex will often supplement those forms or combine with other new/old media to overcome inherent weaknesses.

Nevertheless, many critics voice valid arguments concerning the value and cost effectiveness of a number of proposed videotex offerings. Some videotex systems have been accused of simply duplicating presently available alternatives at a greater price and with less utility. Obviously, people will not change their habits unless true performance and/or cost benefits are developed.

Value to Organizations

The major players in North America come from numerous industries, primarily due to the wide and varied applications presented by videotex. Viewdata, due to its inherent capabilities, has attracted participants from publishing, retailing, agriculture, banking and other financial intermediaries, information processing, and communications. Teletext, due to its more narrow applications range, is composed of members primarily from the areas of broadcasting and publishing.

The motivating forces behind entry into videotex can be partially explained according to industry membership. The communications industry, including telephone companies, broadcast and cable systems, and the information utilities, tends to view videotex as an opportunity in which a great deal of synergy can be obtained. Existing excess capacity in distribution and computer facilities, overlapping research and development applications, in-place distribution infrastructures, and complementary activities for current management and other human resources, work together to make videotex a logical extension of their respective businesses.

The publishing, banking, and retailing industries cannot approach the communications industry in terms of achieving its strategic and operating fit. These industries tend to view videotex as more of a threat than an opportunity. This, of course, is a generalization and does not apply to a number of progressive firms within each of the above mentioned industries. However, for the most part, videotex is viewed as both a threatening substitute and a costly, unknown quantity. Therefore, many firms within these industries are standing on the sidelines waiting for a clearer picture of the future to emerge, and at times attempting to forestall development through both passive (e.g., not investing) and active (e.g., legal action) means. Those firms who have moved ahead and invested or participated in projects have often done so as a defensive response to competitive action.

Chicken and Egg Problem

An often cited problem in the industry is the chicken or egg dilemma. The industry is reluctant to bring out new services until there are adequate numbers of people able to receive them to cost-justify their introduction. Without a sufficient number of beneficial services, however, the mass consumer markets cannot be induced to pay for expensive prerequisite equipment. Subsequently, without volume increases, prices for equipment and services will remain high, further inhibiting penetration of mass markets. A key question is, what combination of services is necessary to reach critical mass and subsequently drive costs down, breaking this circular dilemma. This problem especially affects videotex systems requiring consumers to purchase their own hardware, as opposed to those systems which supply equipment at a relatively low-cost rental/lease fee.

Inter and Intra-Industry Cooperation

To a great degree, the opening of the mass market depends upon intra- and inter-industry coordination and cooperation. Indeed, channel members, equipment manufacturers, and technology providers would benefit by appropriate collaboration. A major complaint by many committed firms is the problem of a number of key firms which remain standing on the sidelines, rather than investing their resources. A second concern revolves around the unwillingness of committed firms to share their insights and findings with others. The major argument for industry statesmanship in these early

years is that most involved parties would benefit from coordinated efforts which enlarge the total market.

Public Policy Concerns

Numerous legal and public policy concerns have been raised by outside observers and within the industry itself. Privacy and security issues; the problems created by electronic polling; impulse ordering by consumers; copyright/royalty questions; liability for improper performance by channel members; economic dislocation of business and workers displaced by videotex; the possibility of an information rich versus information poor caste system; and a number of other 1984 types of problems.

Technology has often moved so quickly that the courts, legislative bodies and regulatory officials find it difficult to efficiently cope with the legal, competitive and social fallout of technologies such as videotex. Nevertheless, many issues and areas of potential concern have been identified and some possible solutions advanced.⁶

Standardization

Standardization of the various available protocols (software which determines the level of resolution and formats for text and graphic displays) has been cited by a number of industry participants as the single most important factor for the survival and growth of videotex. While most involved wanted standards to develop sans government intervention, the hope was that the marketplace would make an early decision. The standard developed by AT&T, the Presentation Level Protocol (PLP), appears to have done just that. PLP has been described as the "de facto standard" since its introduction in May, 1981. It is currently in the public comment phase, but has been accepted by most participants as the industry standard for the future.

The Canadian Telidon and French Antiope protocols, -- software is the same for both teletext and viewdata in each system -- can be relatively easily adapted to PLP. However, the innovators of both teletext and viewdata, the British, will need to undertake expensive and extensive modifications to upgrade their Prestel (viewdata) and Ceefax (teletext) systems to be PLP compatible. The systems currently operated in the U.S. which have internally developed protocols have virtually unanimously announced that they will adopt PLP when their customers have terminals and personal computers to receive it.

⁶This area has only been lightly touched on as another conference presenter has been assigned the task of advancing such issues. For an excellent review of the public policy issues associated with teletext and viewdata, see Tydemann, J. et al., Teletext and Videotex in the United States. McGraw-Hill Publishing Co., 1982.

The next section will examine the market characteristics for videotex in terms of potential benefits/attributes offered to consumers, home and business market distinctions, current and future markets and lastly, penetration projections for videotex will be provided.

MARKET CHARACTERISTICS

Potential User Benefits

Many of the aforementioned environmental trends correlate nicely with the benefits and attributes which videotex potentially offers to consumers. Following is a list of benefits and attributes compiled from interviews with industry participants (5, p.54). In all likelihood, the order of importance of these benefits will not be constant across videotex, but will vary by content category, market target, and types of system. The corresponding definitions have in some cases been altered by the authors.

1. Increased control over one's life
2. Convenience: less "hassle" than existing alternatives
3. Time saving: increases time for preferred activities
4. Simplicity: simple to use
5. Comprehensiveness: includes many relevant information categories/services in a single source
6. Organization: provides structure for the users information/service needs
7. Immediacy: information available on impulse
8. Reliability: authoritative source
9. Accessibility: consumers anywhere can obtain benefits
10. Affordability: cost-effective
11. Expectation of technological progress: an idea whose time has come
12. Currency: time-perishable information made quickly available.
13. Energy: not only reduce energy costs, but substitute for travel mitigating energy availability concerns.

Home and Business Market Distinctions

The industry tends to distinguish between two markets, commercial and consumer. Essentially, the division is made by a seemingly distinct separation of applications and needs. Commercial markets tend to have more readily defined requirements, are able and willing to pay for greater specialization, and are reasonably accessible due to a more enlightened outlook towards innovations. In addition, most firms of significant size are currently using computer based information systems such as information processing systems, in-house computer and data base facilities, and time sharing services. Viewdata services may be integrated with these existing operations and simply extend or augment many current processes.

Consumer markets are much more complex in terms of understanding and penetrating. Their wants and needs are more difficult to assess, they are less willing to purchase systems because benefits are

less obvious, they are less able to purchase systems, and they are more difficult to reach in terms of communicating benefits and stimulating adoption.

One need be careful, however, of describing the purpose of usage based on the place of usage. That is, personal shopping, banking and communications through viewdata may take place at work, while a great deal of primary or secondary job related usage may occur at home.

Current Markets

Two years ago subscribers to the information utilities could best be described as computer hobbyists [5, p.60]. The majority used data processing equipment on the job (66%) and often used videotex for data storage, personal computer enhancement, and as a communication vehicle to other computer buffs, major computer manufacturers and so on. The Source now reports that only 40% of its current subscriber base works in computer related areas. Further, new subscribers are much more likely to join for non-computer oriented content, which the information utilities have greatly expanded. Following is an examination of some current market characteristics for the information utilities.⁷

The Source reports (reported in February, 1983) that the average age of its subscriber is 42 years old -- 3 years older than in 1981 -- with 64% over 35. Average income is \$59,000; most users are professionals/businessmen; most are college graduates; and the vast majority (90%) are male. In terms of usage 20% of the subscribers base accesses the Source most often at work. Fifty-three percent spend at least half of their access time for primary or secondary occupation purposes. The Source data indicates that videotex users are not solely composed of younger computer hobbyists.

CompuServe has experienced both different and similar trends in their subscriber base. New subscribers as compared to old tend to be slightly younger, a bit less "upscale" in terms of income, are more likely to be female than before, have children who are increasingly using the service, and tend to have occupations which are less technical.⁸

The trend towards less of a computer hobbyist profile, despite a subscriber base which predominately owns personal computers as opposed to terminals, is encouraging. It tends to reinforce the thought that non-hobbyist markets, who purchase videotex services not for the technology itself but for the problems it solves, are beginning to emerge.

⁷From an interview conducted by the authors with Nancy Beckman of The Source Telecomputing Corporation (Feb., 1983).

⁸Jeffrey Wilkins, from a speech given at the conference "Videotex: Implications for Marketing II," (Oct., 1982)

Future Consumer Markets

Virtually all of the videotex experiments and businesses indicate that the first wave of future adopters will be "up-scale," meaning consumers with higher than average incomes, job positions and levels of education. Provided below are synthesized market profiles gathered from firms who have conducted and shared consumer surveys and test results in the industry. [5, p. 61]

Demographics.

Age: 25 to 49
Household Income: In excess of \$35,000
Education: College or better
Employment: White collar

Personality and Life Style Characteristics.

Pro technology; low resistance to change and innovation.
Self-tailored life styles; strong emphasis on own time, tend to purchase or construct the best, strive towards self-improvement, want things now, and inward directed.
Exposure to computer/communications technology at school or work.
High discretionary incomes; willing and able to pay a premium for convenience.
Non-traditional family structures; large number of two income households, single parent families, and singles.
Time Poor; time constrained and willing to pay for alternatives replacing traditional activities which are less than fun.
Information Overloads; information is important to this group, but they are increasingly finding it difficult to process and organize their information resources.

Other markets include youngsters who exhibit little resistance to new technologies, wield significant influence over their parents' purchase decision and for whom numerous recreation and education applications are being developed. The market that could, perhaps, benefit the most from viewdata includes the elderly, handicapped and otherwise housebound individuals. However, this market is viewed as a longer term target due to its generally higher resistance to technology and a lesser ability to pay for systems than the just described targets.

Market Development and Projections

Viewdata household penetration/projections have varied widely, ranging from 7 to over 50 percent by 1990. AT&T has projected a conservative 7 to 10 percent penetration rate for 1990. International Research Development Inc. (IRD) has recently projected a 13 percent penetration of viewdata systems by 1992 [6, p.3).

The authors, in the Fall of 1982, sent a questionnaire to 24 industry participants which included a section concerning penetration rates. The majority felt that forecasting was a rather fruitless endeavor fraught with sheer speculation. Those who did respond indicated that 10 to 20 percent

could be expected by 1990. Following is a review of the current extent of market development.

As of February, 1982 the Dow Jones news/Retrieval service had a subscriber base in excess of 60,000, with a growth rate of over 3,000 per month. In January, 1983 the CompuServe Information Service had over 37,000 subscribers with a growth rate of 3,800 per month. The source as of February, 1983 had a subscriber base of over 29,000, with a reported monthly growth rate of over 1,500 subscribers.⁸

These figures can be compared to earlier subscriber totals. In late Fall, 1981 CompuServe had a subscriber base totaling roughly 14,000. At the same time Dow Jones had 25,000 subscribers. In April, 1981 The Source had about 9,000 subscribers. The rate of growth for all three firms has increased markedly. Although the absolute numbers are relatively small, increasing numbers of systems and ever increasing rises in the rate of growth indicates that videotex is beginning to come of age.

CONCLUDING COMMENTS

What does the future hold for videotex? Based upon the analysis leading to this paper, it is expected that over the next ten years teletext will emerge as a mass market medium, primarily because of its more passive nature, low cost and low user skill requirements. Viewdata, on the other hand, will probably experience growth by targeting markets. While viewdata may eventually live up to the projections by some industry observers of becoming a ubiquitous mass market medium, it is doubtful that penetration projections of 50 to 75 percent will be reached until well into the 1990's or beyond.

The problems confronting the industry at this time, such as price, system development and content formation, should be overcome through marketplace resolution in time. The organizations which will ultimately succeed, however, will be those which have analyzed the consumer and the environment most accurately, and at the same time have the distinctive competencies, financial resources, and the will to form consumer dictated systems. It is important to reiterate that consumer resistance to change can only be overcome by providing cost or performance benefits unachievable by current alternatives.

The potential benefits offered by videotex seem to hold promise to help ease the pressures on consumers brought by rapidly changing social, cultural, technological, legal, and economic environments. Troublesome crime rates, changing family structures and work roles, evolving missions of educational institutions, marginal gains in national productivity, lifestyle constraints, energy price and availability concerns, and an information

impacted society are examples of some of the problems which potentially can be addressed in a positive manner by videotex, particularly viewdata. The wide collection of services should serve to make increasingly complex lives easier and provide users with unparalleled control over their affairs.

Such benefits, however, will not be achieved without costs to at least some segments of the population. Some current business forms will be altered or eliminated, traditional social patterns may be transformed, and Big Brother fears will become increasingly possible. From interpreters of prophecy and Orwellian futurists to those with a vested interest in the present order, resistance by affected parties will be intense for those applications negatively affecting the status quo. Whatever the final outcomes, one can be assured that over the next exciting and challenging twenty years, the social, political, and economic transformations on a national and international level will be significant.

REFERENCES

- ¹Driskill, Genie. Speakers Condensations from the Conference Videotex: Implications for Marketing II. Edited by W. Wayne Talarzyk (Forthcoming)
- ²Lovelace and Robinson. "KSL-TV Results and NTSC Broadcast Teletext Standards." Broadcast Engineering, Vol. 22, No. 2, February, 1980.
- ³"Private and In-House Videotex Systems." Butler Cox Videotex Report Series '82. No. 3, October 1982.
- ⁴Roizen, Joseph. Videotext. Edited by Efrem Sigel. White Plains: Knowledge Industry Publications Inc., 1980.
- ⁵Talarzyk, W.W. and Widing, R.E. "Introduction to and Issues with Videotex: Implications for Marketing." The Ohio State University, College of Administrative Science Working Paper Series, WPS 82-14, January 1982.
- ⁶"13% of U.S. Homes to Have Videotex by 1992." The Viewtron Newsletter. Miami: Viewdata Corporation of America, 1983.
- ⁷"Videotex Services and the Market Response." Butler Cox Videotex Report Series '82. No. 5, December 1982.

⁸Reported to the authors through telephone surveys with each firm.

VIDEOTEX: THE ISSUES

Mary Gardiner Jones, Consumer Interest Research Institute

ABSTRACT

This article reviews the principal public policy issues posed by the new videotex services. These issues concern public access to these systems, their likely responsiveness to consumer information needs and the consumer protection requirements of the public. The article also reviews the regulatory tools available to meet the public's needs.

You have just heard a description of videotex and of the new forms of messaging, shopping, banking and information retrieval opportunities which it can provide consumers.¹

I want to talk to you this morning about some of the issues which this vast new electronic medium may pose to consumers in terms of their access to, and enjoyment of the benefits which it offers to consumers and citizens.

Unlike the United States Chamber of Commerce's Biz Net, the consumer movement does not have six million dollars with which to develop an independently operated satellite based information network to serve the needs of its members. Thus, consumers must depend on existing information networks to meet their information needs. To date, such networks have not yet emerged within existing governmental, non-profit or commercial information systems. I believe that consumer information needs are of such meaning and importance to the ability of consumers to cope with their daily lives, that at least some of their needs will be met through normal marketplace channels. However, even if videotex systems slowly evolve to meet important consumer information needs, several important issues remain to be resolved before we can be certain that these systems will serve the full range of consumer/citizen interests. These issues fall into three general areas: providing access to the transmission/hardware system to all consumers regardless of their geographic location or ability to pay; ensuring that the full range of consumer information needs will be responded to through the new information technologies and assuring adequate protection to consumers against misrepresentation and fraudulent practices, political manipulation and invasion of their legitimate privacy concerns.

I will deal with each of these issues seriatim,

¹Videotex embraces two distinct electronic services: teletext one-way services available over TV sets equipped with a decoder and viewdata two-way systems available over cable or telephone based systems. Only viewdata systems can provide the full range of these services. These remarks, therefore, focus on two-way videotex systems although many of the policy problems identified here are common to both one and two-way systems.

sketching out the importance of each to full consumer enjoyment of these technologies, the obstacles which may exist to their achievement and the regulatory options available to consumers to overcome these obstacles.

1. UNIVERSAL AVAILABILITY OF VIDEOTEX HARDWARE

If all consumers are to participate in these new electronic information technologies, they must have access either to an interactive two-way cable system or to a telephone-linked home terminal. While there are several other over-the-air delivery systems which can deliver information and programs into the home, these systems are typically not interactive and provide only limited access either because of geographic transmission limitations or because of the limited number of channels which they can offer.² While offering alternative communication systems for geographically remote areas or for specialized audiences, they cannot offer a broad-scale universal service to the consumer population as a whole.

While these alternative systems can exist simultaneously with the more universal service type systems, fears have been expressed that if licensed too freely or prematurely, they could siphon off the most profitable segments of the market (either as respects audience or as respects programs) thus making it more difficult for communities to attract the investment required to provide the two-way interactive systems (either cable or telephone-based) which videotex requires. In fact, consumers should examine such arguments with caution since in the long run their interests may be best served by a multiplicity of communication sources to provide them with the competition and diversity of sources they need to ensure maximum choice and highest quality.

A second issue confronting consumers in achieving a universal service concept for the videotex hardware infrastructure is how to ensure videotex services to their constituents if private investment does not provide the requisite infrastructure. Two way cable is not a fact of life in most cable systems today.³ Its cost for cities of 750,000 population can run to \$10-12 million and to \$3-4 million for cities of 150,000 population.

²Some of these alternatives include lowpower TV, Direct Broadcast Satellite (DBS), multi-point distribution systems (MDS), or satellite master antenna systems (SMAS). See Washington Post, August 24, 1982, page B1.

³In 1982, more than 70% of the nation's more than 4,000 cable systems are still limited to 12 channels. Of these 4,000-plus cable systems, very few are interactive (capable of handling videotex services) and only half could be converted.