

## Computers

### AGE OF INTELLIGENT MACHINES

29 min; color; p,i,j,h,c,a

1/2" VHS **CC3572,VH**

Examines the world of artificial intelligence (AI) and expert systems guided by Ray Kurzweil, who developed the music synthesizer that talks and the machine that reads books aloud. Looks at how a new generation of machines can perform functions once thought impossible—diagnose illnesses, create original art, and navigate jets. Explains that one of the major goals of AI research is to learn how the human brain works and to duplicate the human ability to use judgement. Features Stevie Wonder and AI researchers Roger Shank, Marvin Minsky, Raj Reddy, and Ed Feigenbaum. (RICHTER;SCHMAL;AIMS;c1987)

Brain; Computers; Technology

### BANKRUPT

27 min; color; h,c,a

1/2" VHS **BC0274,VH**

Enterprise I Series - Documents the demise of Inforex—a \$70 million a year high-tech firm that went bankrupt after failing to develop a second product as successful as its first computer. Explains how the company filed for protection under Chapter 11 of the Federal Bankruptcy Act, but still could not design a new product to spur its growth and was finally sold to Datapoint, a computer firm based in Texas. Looks at the human consequences of the failure to innovate. (WGBHTV;MTI;c1981)

Business; Computers; Industry

### CHANGING NATURE OF WORK SERIES

UNIVERSITY PRESIDENT [EC2782]

### THE CHIP VS. THE CHESS MASTER

58 min; color; h,c,a

1/2" VHS **BC0381,VH**

Nova Series - Chronicles the two-game chess match between Gary Kasparov and Deep Thought, the world's best chess-playing computer, to explore advances in artificial intelligence. Demonstrates why chess is the ideal measure of a computer's "thinking" ability. Examines Deep Thought's method of information processing. *Closed Captioned.* (WGBHTV;CORT;c1991)

Artificial intelligence; Computers

### THE COMMUNICATIONS REVOLUTION SERIES

Technological developments have changed the way people think and how the world communicates. Arthur C. Clarke, distinguished thinker and writer of both science and science fiction, explores the benefits, challenges, potentials, and pitfalls of our lifestyle of communications.

#### THE COMMUNICATIONS REVOLUTION, NO. 3: FACING OUR SCIENCE FICTION FUTURE

19 min; color; j,h,c,a

1/2" VHS **CC3400,VH**

Discusses the development and potential of computers and artificial intelligence. Examines how we define ourselves and our place in the universe, raising questions about what intelligence is, what is unique about humans, and whether both humans and the machines they build are part of the evolution of intelligence beyond matter. Discusses the historical development of work and leisure and speculates about the effects of the "information age" on how we spend our time. (MTI;c1985)

Computers; Future studies; Technology

### COMPUTER APPLICATIONS IN APHASIA REHABILITATION

59 min; color; c,a

1/2" VHS **HC1627,VH**

Computers have played an increasing role in the practice of speech and language pathology since the 1970's. The power and sophistication of computers enable clinicians to measure, image, and store speech and voice data with an ease only dreamed of twenty years ago. Discusses the role computers play in the diagnosis and treatment of aphasia and demonstrates how some clinicians are using computers in their clinical practice. Broadcast on November 5, 1997. (TOMOCHÉ;UAZNECD;c1997)

Computers; Rehabilitation, physical and mental; Speech, Disorders of

### COMPUTER APPLICATIONS IN THERAPEUTIC RECREATION

22 min; color; c,a

1/2" VHS **EC2894,VH**

Recreation Therapy Videos series - Illustrates how computers can be used in therapeutic recreation. Charlie Dixon of CompuTR guides the viewers through some currently available computer applications. (WINNINJ; INUDRPA;c1996)

Computers; Technology; Therapeutic recreation

### COMPUTER GRAPHICS SPECIAL

58 min; color; c

1/2" VHS **RC1583,VH**

Showcases the sights and sounds of state-of-the-art, computer-generated animation with a sampling of the work of over 150 artists and studios. Surveys the use of computer graphics in industry, science, the military, space exploration, meteorological and environmental research, advertising, and as a new art form striving to achieve legitimacy in its own right. Highlights remarks by innovators in computer technology and animation techniques. (ONEPASP;LAEM;r1992)

Computer animation

### COMPUTER SCIENCE (1)—OVERVIEW

30 min; color; c,a

1/2" VHS **IC0865,VH**

For All Practical Purposes: Introduction to Contemporary Mathematics series - Presents an historical perspective of the essential role math has played in the development of the computer. *Closed Captioned.* (COMAP;ANBERG;p1985)

Computers; Mathematics

### COMPUTER SCIENCE (2)—RULES OF THE GAME: ALGORITHMS

30 min; color; c,a

1/2" VHS **IC0866,VH**

For All Practical Purposes: Introduction to Contemporary Mathematics series - Defines algorithms and discusses how to analyze, choose, and apply the best one for a given problem. Explores two basic sorting algorithms—the insertion sort and the merge sort. *Closed Captioned.* (COMAP;ANBERG;p1985)

Computers; Mathematics

### COMPUTER SCIENCE (3)—COUNTING BY TWOS: NUMERICAL REPRESENTATION

30 min; color; c,a

1/2" VHS **IC0867,VH**

For All Practical Purposes: Introduction to Contemporary Mathematics series - Discusses the relationship between mathematics and the coding and encoding of information for computers. Explains how the binary system is used in computer information storage, processing, and retrieval. Illustrates the difference between analog and digital information systems. *Closed Captioned.* (COMAP;ANBERG;p1985)

Information storage and retrieval; Mathematics

## Computers

### COMPUTER SCIENCE (4)–CREATING A CODE: ENCODING INFORMATION

30 min; color; c,a  
1/2" VHS **IC0868,VH**

For All Practical Purposes: Introduction to Contemporary Mathematics series - Explains that, since the possible encoding of computer information is endless, choosing the best code depends on a careful analysis of the computations required and the efficiency of the code. Discusses the efficiency and usefulness of ASCII for text processing, the major steps of the Laplacian pyramid, the usefulness and advantages of the Hamming code, and the concept of pseudo-random number generation and the role it plays in the encryption algorithm. *Closed Captioned.* (COMAP;ANBERG;p1985)

Computers; Information storage and retrieval;  
Mathematics

### COMPUTER SCIENCE (5)–MOVING PICTURE SHOW: COMPUTER GRAPHICS

30 min; color; c,a  
1/2" VHS **IC0869,VH**

For All Practical Purposes: Introduction to Contemporary Mathematics series - Visits Symbolics, Inc., a leader in computer-generated graphics, to explain and demonstrate computer graphics. Begins with the adaptation of the equation of the line to the mosaic design of the computer screen and continues to build upon the different aspects of animated graphics. Demonstrates the creation of a three-dimensional model, followed by object animation and the rendering of a realistic simulation. Concludes by looking at automated motion. *Closed Captioned.* (COMAP;ANBERG;p1985)

Computer animation

### CREATING SOCIAL PRESENCE IN ONLINE LEARNING SPEAKER CAROL HOSTETTLER

color; c  
1/2" VHS **EC3144,VH**

Scholarship of Teaching and Learning Series - In an April 1, 2005 presentation as part of the Scholarship of Teaching and Learning at Indiana University-Bloomington, Dr. Carol Hostetter, professor of Social Work at IUB, shares her findings from a study that compares two entirely online courses with one face-to-face course in order to understand students' perceptions of social presence in electronic courses. Includes discussion of social presence and how fostering it can aid instructors' efforts to promote critical thinking and a sense of community. (INUISS;c2005)

Communication; Computers

### EBAY AND NAPSTER: CHANGE AGENTS

26 min; color; c,a  
1/2" VHS **CC6066,VH**

Documents the birth and growth of eBay. Includes a taped focus-group meeting with customers and eBay employees. Addresses the problem of fraud in the online auction business world, and includes interviews with lawyers who have filed suits against eBay. Demonstrates how eBay is influencing the way people shop. Considers how Napster threatens the livelihood of musicians and record labels. Includes interviews with Napster users, musicians and lawyers. Presents the organization Artists Against Piracy. Includes arguments within the music industry in favor of Napster. (FFHS;c2000)

Commerce; Computers; Law; Music; Technology

### EDUCATING WITH MULTIMEDIA (2ND EDITION)

29 min; color; h,c,a  
1/2" VHS **EC2939,VH**

Looks at multimedia as an educational tool, discussing its uses and benefits. Examines the use of television and computer graphics, digital imaging, computer design and video programs, interactive technology, 3-D animation, networks, disc technology and the use of multimedia in the college classroom. Ends with speculation on the future use of multimedia in education, proposing the idea of a virtual campus. Includes anecdotal information on the testing and use of the technology. (FLMIDEA;n.d.)

Audio-visual education; Computers; Education;  
Technology

### ELECTRIC DREAMS

24 min; color; h,c,a  
1/2" VHS **RC1719,VH**

Movie Magic Series - Provides a brief history of computer animation, explaining concepts of raster and vector graphics and focusing on three-dimensional modeling technologies in use in 1993. Uses the example of the production of an animated photorealistic talking cat in the Walt Disney movie *Hocus Pocus* to explain animation processes. Interviews animators, modelers, directors, and owners of various computer animation companies such as Abel and Associates, Rhythm and Hues, and Digital Domain. Uses voice-over narration, sample animation footage, and documentary footage. (BENZGAR;ALTSCHG;c1993)

Computer animation; Motion picture animation

### ENTERPRISE I SERIES

*For descriptions see individual titles:*

BANKRUPT [BC0274]

### FEEDBACK IN A DISTANCE LEARNING ENVIRONMENT: TYPES AND FREQUENCIES: BARBARA BICHELMEYER #1

color; c  
1/2" VHS **EC3016,VH**

Scholarship of Teaching and Learning Series - Professor Barbara Bichelmeyer and doctoral candidate Garvey Pyke, of the Instructional Systems Technology Department of the Indiana University School of Education, present their research study on the dynamic of feedback interactions between instructors and learners in a web-based learning environment in a presentation on the Scholarship of Teaching and Learning held at IU-B on March 29, 2002. They report on the rationale, literature review, methodology, and findings and implications of the study, where they found three categories of feedback to emerge in an online course that used asynchronous and synchronous chat and email as means of interaction: corrective, motivational, and technology feedback. The researchers report the highest frequency of feedback to be in the the corrective category, and discuss reasons and implications for this finding. Dr. Bichelmeyer, who was also the instructor for the course, additionally talks about her experience providing feedback and challenges she faced during her first experience in designing and teaching an online course. The researchers also provide information for those considering online courses regarding giving feedback. (INUISS;c2002)

Computers; Education–Experimental methods;  
Feedback; Teaching

### FOCUS ON BEHAVIOR SERIES

*For descriptions see individual titles:*

OF MEN AND MACHINES [EB0711]

## Computers

### FOR ALL PRACTICAL PURPOSES: INTRODUCTION TO CONTEMPORARY MATHEMATICS SERIES

Each program incorporates innovative techniques, such as computer-generated graphics, to present the dynamics of mathematical processes, enabling viewers to see quantities and dimensions progressively changing through time. *For descriptions see individual titles.*

COMPUTER SCIENCE (1)–OVERVIEW [IC0865]

COMPUTER SCIENCE (2)–RULES OF THE  
GAME: ALGORITHMS [IC0866]

COMPUTER SCIENCE (3)–COUNTING BY  
TWOS: NUMERICAL REPRESENTATION  
[IC0867]

COMPUTER SCIENCE (4)–CREATING A CODE:  
ENCODING INFORMATION [IC0868]

COMPUTER SCIENCE (5)–MOVING PICTURE  
SHOW: COMPUTER GRAPHICS [IC0869]

### FROM LINKING TO LEARNING

30 min; color; c,a

1/2" VHS **EC2471,VH**

Showcases the *Intermedia* project at Brown University. Follows the development, use and evaluation of hypermedia software in a literature course and a plant cell biology course. Students demonstrate how the software allows them to pursue "links" between the course material and related subjects within a collection of text and illustrated information. (DORSEYD;ANBERG;c1988)

Computers; Education–Experimental methods

### FRONTLINE SERIES

Probes into the heart of the issues behind the headlines, investigating a wide variety of topics from international affairs to domestic news and current trends. Produced by the Documentary Consortium of public television stations (KCTS Seattle, WGBH Boston, WNET New York, WPBT Miami, WTVS Detroit). *For descriptions see individual titles:*

YOU ARE IN THE COMPUTER [CC3767]

### HIGH STAKES IN CYBERSPACE

60 min; color; c,a

1/2" VHS **CC5196,VH**

Discover why many of America's richest companies are spending billions of dollars to construct an information superhighway to your home. Looks at whether privacy is the price you'll have to pay on this toll road. Talk to those who know: advertisers, futurists, software designers, venture capitalists and consumer advocates. (WGBHEF; PBSV;c1995)

Future studies; Information storage and retrieval; Social change; Technology

### HORIZON SERIES

*For descriptions see individual titles:*

TALKING TURTLE [EC2213]

### INTERFACE SERIES

*For descriptions see individual titles:*

ROBOTS GET SMARTER [EC1124]

### MACHINE THAT CHANGED THE WORLD SERIES

#### MACHINE THAT CHANGED THE WORLD, NO. 1: GIANT BRAINS

60 min; color; c,a

1/2" VHS **BC0392,VH**

Tells the story of the birth of computers and the men and women who assisted in that birth: Charles Babbage, Alan Turing, Herman Goldstine, John Mauchly, Ada Lovelace and J. Presper Eckert. As advancing technology required more computations, a giant machine was built to increase both speed and accuracy—ENIAC, the most complicated electronic machine ever built, a pocket calculator today is more powerful. *Closed Captioned.* (WGBHTV;BBC;FFHS;c1992)

Computers; Scientists; Technology

#### MACHINE THAT CHANGED THE WORLD, NO. 2: INVENTING THE FUTURE

60 min; color; c,a

1/2" VHS **BC0393,VH**

Chronicles the rough times experienced by the computer pioneers, until the industry took off and forever changed the way the world does business. Covers the invention of programming languages, and the hardware revolution, first to transistors, and later to integrated circuits, that made computers smaller and cheaper and ultimately led to personal computers. *Closed Captioned.* (WGBHTV;BBC;FFHS;c1992)

Computers; Technology

#### MACHINE THAT CHANGED THE WORLD, NO. 3: THE PAPERBACK COMPUTER

60 min; color; c,a

1/2" VHS **BC0394,VH**

Computers got their name because historically they were first used for numbers: but in fact they are all-purpose machines that can be turned to any purpose by being so instructed. Shows how room-sized number crunchers evolved into desktop machines easy enough for a child to use, with less and less to do with arithmetic, cheaper than a TV set. No story of personal computers is complete without the Apple story, covers the development of microprocessors, the trailblazing of Steve Jobs, Steve Wozniak and Michael Markkula—and the arrival of a new generation for whom computers are not a machine at all, but a new medium. *Closed Captioned.* (WGBHTV;BBC;FFHS;c1992)

Computers; Technology

#### MACHINE THAT CHANGED THE WORLD, NO. 4: THE THINKING MACHINE

60 min; color; c,a

1/2" VHS **BC0395,VH**

Computers can calculate at mind-boggling speed. They can store, compare, predict, juggle data...what they can't do—yet, anyway—is make sense of the plot of Dick and Jane stories. Program is devoted to artificial intelligence, and what computer scientists, psychologists and philosophers have learned about human intelligence in the process of trying to teach computers to "think". What we are learning, says Marvin Minsky, one of the pioneers of artificial intelligence at MIT, is that "the things that people think are hard are actually rather easy, and the things that people think are easy are very hard." *Closed Captioned.* (WGBHTV;BBC;FFHS;c1992)

Artificial intelligence; Computers; Technology

#### MACHINE THAT CHANGED THE WORLD, NO. 5: THE WORLD AT YOUR FINGERTIPS

60 min; color; c,a

1/2" VHS **BC0396,VH**

Americans live in the freest country on the planet, but we are also the most counted, recorded, questioned, dossierized and filed; the same computers that free us to work, shop, play and organize our lives also enable others to keep track of almost everything we do. Looks at the social revolution wrought by computers, and at what price: the disappearance of place as an attribute, the loss of privacy, the pollution of information—and the transmission, sharing and replication of polluted information: and the near-catastrophes that can occur when (as happened in the October 1987 stock market plunge) computer networks take on a life of their own. *Closed Captioned.* (WGBHTV;BBC;FFHS;c1992)

Computers; Ethics; Technology; Philosophy (CPI)

### MACNEIL/LEHRER NEWSHOUR SERIES

*For descriptions see individual title:*

NEWS HOUR WITH JIM LEHRER: MARCH 16,  
2000 [CC5744]

**THE MAN WHO WANTED TO CLASSIFY THE WORLD**

60 min; color; c,a

1/2" VHS **EC3057,VH**

Reviews the life of Belgian utopian Paul Otlet, who died in 1944, whose influences are still being felt today. Uses documents from various archives and interviews to detail his involvement in founding the International Institute of Biography and developing the universal index of bibliography; his efforts to build the perfect city, "A World Center;" his antiwar efforts, which led to the League of Nations; and his book *The Treatise on Documentation*, which developed the concept of the computer and computer networks. Includes interviews with Leila Puteuyps, Simon Versnel, Emma McDougall, Jean-Claude De Rudder, and Jim Howe. (FILMK)

Biography; Information storage and retrieval; Inventors; Libraries

**THE MEDIA LABORATORY**

60 min; color; c,a

1/2" VHS **EC2498,VH**

Highlights research being done at the Media Laboratory, Massachusetts Institute of Technology, which brings together the most advanced thinking and research in information technology. Focuses on research in Image Technology, Interactive Systems, Human Cognitive Processes, and Theories of Communication, using advanced computer equipment. Introduces aspects of the Media Laboratory's research including School of the Future, Interactive Video, Electronic Publishing, Music Research, and others. (MIT;n.d.)

Computers; Technology

**MOVIE MAGIC SERIES**

ELECTRIC DREAMS [RC1719]

PAINTING BY NUMBERS [RC1720]

**MULTIMEDIA DESIGN TEAM**

30 min; color; c,a

1/2" VHS **EC2741,VH**

Presents an overview of how to design a multimedia program. Begins with a review of material covered in previous sections of the series, including what multimedia is, hardware requirements, and types of software available. Provides a Design Process which guides the viewer through steps to decide if a multimedia program is the solution to a problem, and, if so, whether to use a commercial, repurposed or original program. Examines why design teams are generally more effective than individual designers, how the teams work, and how individuals can make a multimedia program on their own. Discusses the need to obtain copyright permission for much, if not all, of non-original materials used. (MNSAT; c1994)

Audio-visual materials—Production; Computer programming, BASIC

**NEW LITERACY**

26 min; color; c,a

1/2" VHS **EC2538,VH**

In the future will literacy include the ability to operate a computer? Looks at how computers are changing the face of the American educational system. Also, looks at the practical applications of computer technology in the classroom. (EDUCBC;FFHS;c1983)

Computers; Education—Experimental methods

**THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS SERIES (REVISED)**

Presents a comprehensive review of the computer, data processing terminology, computer applications, and computing environments. Introduces the concepts of RAM, ROM, cycle time, FORTRAN, COBOL, BASIC, Pascal, and issues of computer security, office automation, and artificial intelligence. Includes computer experts, such as science writer Isaac Asimov, author Michael Crichton, and U.S. Navy Commodore Grace N. Hopper, who place textbook knowledge into real-world settings. Features current software and hardware in this revised version.

**THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 1: A LITERATE SOCIETY & NO. 2: THE COMPUTING MACHINE, PART I**

60 min; color; c,a

1/2" VHS **BC0337,VH**

*A Literate Society* discusses the distinction between data and information, what computers do, and who needs computers. *The Computing Machine, Part I* explores the vast number of settings in which computers are used, from the family farm to tracking down the FBI's Ten Most Wanted list. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)

Computers

**THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 3: THE COMPUTING MACHINE, PART II & NO. 4: COMMUNICATING WITH A COMPUTER**

60 min; color; c,a

1/2" VHS **BC0338,VH**

*The Computing Machine, Part II* looks at the wide variety of environments in which computers are used, including business, the arts, and traffic control.

*Communicating with a Computer* explains the three basic functions common to all data processing: input, processing, and output. *Closed Captioned.*

(CCOMCTV;ANBERG;c1988)

Computers

**THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 5: DATA REPRESENTATION & NO. 6: PUTTING DATA IN**

60 min; color; c,a

1/2" VHS **BC0339,VH**

*Data Representation* explains how computers read input. Discusses the translation of direct input, human readable, and machine readable into bytes. *Putting Data In* explores the various methods of data inputting, including key-to-tape, key-to-disk, and large volume keypunching. *Closed Captioned.* (CCOMCTV; ANBERG;c1988)

Computers

**THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 7: GETTING INFORMATION OUT & NO. 8: STORING DATA**

60 min; color; c,a

1/2" VHS **BC0340,VH**

*Getting Information Out* explores outputs, such as visual display, voice output, printers, plotters and others. *Storing Data* presents primary and secondary data storage systems. Explores RAM, ROM, semiconductor memory, access time, and cycle time. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)

Computers

## Computers

### THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 9: SECONDARY STORAGE & NO. 10: PROCESSORS

60 min; color; c,a  
1/2" VHS BC0341,VH

*Secondary Storage* presents information about sequential and direct processing. Covers the relationship between batch input and magnetic-tape files, and the variety of tape and disc options. *Processors* examines the internal workings of a computer. Includes serial and parallel operations, fixed-and-variable length operations, and the relationship between microprocessors and other processors. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)  
Computers

### THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 11: COMPUTER OPERATIONS & NO. 12: PERSONAL COMPUTING

60 min; color; c,a  
1/2" VHS BC0342,VH

*Computer Operations* explores how data is read by an EDP system. Explains how the computer performs arithmetic and logical operations. *Personal Computing* discusses fitting microcomputers into the EDP spectrum and the growth of the personal computer industry. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)  
Computers

### THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 13: FROM MICROS TO MONSTERS & NO. 14: SYSTEM ANALYSIS AND DESIGN

60 min; color; c,a  
1/2" VHS BC0343,VH

*From Micros to Monsters* demonstrates the different needs for varying sizes and capacities of computers, from microcomputers to supercomputers. *System Analysis and Design* details the role of the systems analyst in identifying and analyzing user requirements and choosing hardware and software options. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)  
Computers

### THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 15: PROBLEM SOLVING AND PROGRAM DESIGN & NO. 16: PROGRAMMING LANGUAGES

60 min; color; c,a  
1/2" VHS BC0344,VH

*Problem Solving and Program Design* discusses the complex problems facing programmers and how flowchart, debugging, and testing create the end product. *Programming Languages* explores the distinguishing characteristics of FORTRAN, COBOL, PL/I, BASIC, Pascal, APL, and RPG. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)  
Computer programming, BASIC

### THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 17: THE PROGRAMMING ENVIRONMENT & NO. 18: OPERATING SYSTEMS

60 min; color; c,a  
1/2" VHS BC0345,VH

*The Programming Environment* discusses the increasing costs of program development and maintenance and the role of chief programmer teams. *Operating Systems* examines the history of operating systems. Includes the development of on-line direct-access systems, multiprogramming, and multiprocessing. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)  
Computer programming, BASIC; Computers

### THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 19: SYSTEM OPTIONS & NO. 20: COMPUTER FILES AND DATABASES

60 min; color; c,a  
1/2" VHS BC0346,VH

*System Options* investigates batch processing, on-line direct-access systems, real-time processing, time-sharing, virtual storage, virtual machine capabilities, and portable operation systems. *Computer Files and Databases* traces the development of input-output systems and the characteristics of a well designed database. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)  
Computers

### THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 21: DATA COMMUNICATIONS & NO. 22: OFFICE AUTOMATION

60 min; color; c,a  
1/2" VHS BC0347,VH

*Data Communications* examines various data transmission options, from dial-up lines to common carriers and satellite communications. *Office Automation* explores voice mail, electronic mail, word processing, and data processing. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)  
Computers

### THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 23: COMPUTING SERVICES & NO. 24: COMPUTING, ORGANIZATIONS, AND THE INDIVIDUAL

60 min; color; c,a  
1/2" VHS BC0348,VH

*Computing Services* discusses the disadvantages and advantages of owning versus leasing computing machines, using outside services versus developing in-house capabilities, and other trade-offs. *Computing, Organizations, and the Individual* discusses the direct and indirect economic and social impact computers and robots have on the workplace. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)  
Computers

### THE NEW LITERACY: AN INTRODUCTION TO COMPUTERS, NO. 25: COMPUTER SECURITY & NO. 26: ISSUES AND TRENDS IN COMPUTING

60 min; color; c,a  
1/2" VHS BC0349,VH

*Computer Security* reviews the increasing scope and frequency of computer crime and the attempts to combat it. *Issues and Trends in Computing* discusses emerging trends in hardware, software, and artificial intelligence research and applications. *Closed Captioned.* (CCOMCTV;ANBERG;c1988)  
Computers

## Computers

### NEWS HOUR WITH JIM LEHRER: MARCH 16, 2000

60 min; color; c,a

1/2" VHS

CC5744,VH

Macneil/Lehrer Newshour Series - Reports the top news of the day for March 16, 2000. Summarizes the national news and includes reports on the stock market. Includes reports on truck drivers' political action against rising fuel prices, on Taiwan and on Albanian Kosovars. Features the "race" to map the human genome and profiles the two major competitors who seek to patent aspects of use of the genomic information. Profiles the NCAA March Madness marketing blitz and asks whether collegiate basketball players, who make so much money for their schools and for the NCAA, should not also receive pay. IU Professor Murray Sperber is briefly interviewed and suggests that they should. Profiles the Electronic book, which was given major support by the publication of a Stephen King short story exclusively in electronic form. Interviews publishers about the future of print and how electronic publishing will affect the industry. (MACNLEH; PBSV;c2000)

Computers; Genetics, Human; Sports

### NOVA SERIES

*For descriptions see individual titles:*

THE CHIP VS. THE CHESS MASTER [BC0381]

THE ROBOT REVOLUTION? [CC3417]

### OF MEN AND MACHINES

29 min; b&w; h,c,a

1/2" VHS

EB0711,VH

Focus on Behavior Series - Investigates the man-machine relationship through the work of Dr. Paul Fitts of the University of Michigan, Dr. Julian Christiansen of the Wright Air Development Center, and Dr. George Briggs of Ohio State University. Shows some of the ways in which man handles and processes information. Describes the problems and dynamics of information feedback between man and machines, the human being's behavior in highly complex man-machine systems, and the way in which information gained from these procedures has led to the redesign of equipment to fit human capabilities. (WNET/13;IU/NLA;p1962)

Computers; Psychology, Applied

### PAINTING BY NUMBERS

22 min; color; h,c,a

1/2" VHS

RC1720,VH

Movie Magic Series - Shows the processes of digital computer enhancement through subtraction, addition and manipulation of elements. Uses examples from the production of *Hearts and Souls*, a Kodak commercial shot in an Argentinean sports arena, and the David Byrne music video *She's Mad* to demonstrate the subtlety and convincing quality of these processes. Interviews animators, visual effects supervisors, movie directors, and executives of Pacific Digital Images, who discuss how digital enhancement enabled them to achieve the goals of each project. Concludes that these processes produce better entertainment because of the flexibility and improvisation that they permit and also the decreased risk to the actors' safety. (BENZGAR;ALTSCHG;c1993)

Computer animation; Motion picture animation; Motion picture photography

### RECREATION THERAPY VIDEOS SERIES

COMPUTER APPLICATIONS IN THERAPEUTIC

RECREATION [EC2894]

### THE ROBOT REVOLUTION?

58 min; color; h,c,a

1/2" VHS

CC3417,VH

Nova Series - Briefly traces the history of the computer revolution and examines the new technology of computer driven automation, noting the potential benefits and problems involved. Demonstrates information manipulation by public sector employees to cut bureaucratic red tape, computer-aided design (CAD) to draft three-dimensional models and analyze designs, and simple programmable robots for assembly line work. Explains how currently automated sectors of manufacturing could be coordinated through a central computer in the next level of automation: computer-integrated manufacturing. Considers the implications of increasing automation for office and factory workers. (WGBHTV;CORT;c1985)

Computers; Future studies; Robotics; Technology

### ROBOTS GET SMARTER

29 min; color; h,c,a

1/2" VHS

EC1124,VH

Interface Series - Demonstrates three different experimental robots being developed at the Stanford Research Institute. Shows Versatran, a robot who uses hand tools in environments dangerous to humans; Butterfinger, a robot who has an arm, an eye, a brain, and limited coordination; and Shakey, who has the added feature of mobility. Presents arguments supporting uses of machines and robots for industrial tasks. (KCETTV;UCEMC;c1970)

Automation; Computers; Robotics

### SCHOLARSHIP ISSUES IN DISTRIBUTED EDUCATION: BOSCHMANN

color; c

1/2" VHS

EC3012,VH

Scholarship of Teaching and Learning Series - In a presentation given on February 11, 2000, as part of the Scholarship of Teaching and Learning series, Erwin Boschmann, professor of chemistry at IUPUI and Associate Vice President for Distributed Education for the Indiana University system, presents issues in distributed education with colleagues Curtis Bonk of the IU-Bloomington School of Education and Simon Brassell of IU-B's Department of Geological Sciences. With particular emphasis on the use of tools and pedagogical approaches, he provides a literature review on distance learning, highlighting visions and significant research and pointing out the role of technology and of pedagogy, with an emphasis on active learning, engagement, and learning centeredness. Dr. Brassell introduces the web-based approaches he employs in his introductory oceanography course, pointing out the benefits of the Internet for teaching and student learning. He demonstrates the web site for the course, discusses some of the tasks students are engaged in during the course, and discusses his course design process. Concludes with Dr. Bonk's demonstration of resources on available tools, and his report on how research meets pedagogy in online learning success. (INUISS;c2000)

Computers; Education-Experimental methods;

Teaching; Universities and colleges

### SCHOLARSHIP OF TEACHING AND LEARNING SERIES

CREATING SOCIAL PRESENCE IN ONLINE LEARNING SPEAKER CAROL HOSTETTLER [EC3144]

FEEDBACK IN A DISTANCE LEARNING ENVIRONMENT: TYPES AND FREQUENCIES: BARBARA BICHELMAYER #1 [EC3016]

SCHOLARSHIP ISSUES IN DISTRIBUTED EDUCATION: BOSCHMANN [EC3012]

## Computers

### SEARCH FOR REALISM: COMPUTER GRAPHICS, ANIMATION AND DESIGN

47 min; color; h,c,a

1/2" VHS **RC1365,VH**

Looks at the industry of computer graphics and animation developed for the film industry and industrial design. Interviews researchers and developers from three organizations—Industrial Light and Magic, PIXAR, and Fujitsu. Includes demonstrations of hardware and software; the process of modeling, animation and rendering; self-shadowing techniques; and cellular array processor (CAP) for interactive images. Includes sequences of animation from two Star Trek films and the complete version of Academy Award winning short subject, *Luxo Jr.* (OPENUN;MEDG;c1987)

Computer animation; Motion picture animation

### SPACESHIP EARTH: A GLOBAL GEOGRAPHY SERIES

Takes a satellite's-eye view of the Earth, providing a unified look at the rich variety and interdependence of life and land on the planet. Makes extensive use of Earth monitoring technologies, including satellite imaging, remote sensing, sonar, and lasers. Examines such global concerns as population, climate, forest, food supplies, and oceans and rivers to show how seemingly diverse life-systems depend on each other. *For descriptions see individual titles:*

THE WATCHKEEPERS [GC1707]

### STATISTICS AT A GLANCE

27 min; color; h,c

1/2" VHS **IC0725,VH**

Explains, using computer graphics, that descriptive statistics is a method for organizing and summarizing data so that the data can be understood quickly and expressed in precise, accurate terms. Illustrates the use of measures of central tendency, such as mean, median, and mode, in a frequency distribution. Demonstrates the use of variability, standard deviation, Z-scores, percentile rank, and correlation as they relate to frequency distribution. (WILEY;MEDG;c1972)

Computer animation; Statistics

### TAKING RISKS AT INTEL

32 min; color; c,a

1/2" VHS **BC0431,VH**

The View from the Top: Managing Change in the Global Marketplace Series - Interviews Andrew S. Grove, CEO of the Intel Corporation, who explains how Intel rose from its humble beginnings to become the leading American producer of microprocessors, by beating out Japanese competition through constant experimentation and innovation. (FFHS;c1994)

Business; Computers

### TALKING TURTLE

50 min; color; c

1/2" VHS **EC2213,VH**

Horizon Series - Introduces LOGO, a computer language designed by mathematician and philosopher Seymour Papert as a language used solely for learning purposes. Explains that the "Turtle" is both a computer-screen graphic shaped like an arrowhead and a robot connected to the computer which moves precisely as the "Turtle" on the screen does. Discusses the uses and potential of LOGO and shows it being used by children (including those with severe handicaps) in various parts of the world, demonstrating how it can be adapted to different cultures and languages. (BBC;OPENUN;MEDG;c1983)

Computer programming, BASIC;

Education—Experimental methods; Teaching

### TRIUMPH OF THE NERDS 1: IMPRESSING THEIR FRIENDS

51 min; color; h,c,a

1/2" VHS **BC0445,VH**

Triumph of the Nerds Series - Presented by Robert Cringley, chronicles the history of the personal computer. Introduces the people responsible for creating the PC industry and documents how it all started, a result of a "pizza and coke culture." Explains the workings of a computer and visits Intel, where the microprocessor was invented. Remembers January, 1975, when the first PC, the Altair 8800, was introduced and Microsoft's Bill Gates and Paul Allen began their meteoric rise to success. Introduces Steve Jobs and Steve Wozniak, co-founders of Apple Computer, which started in a garage and prospered after the introduction of the Apple II. (AMBROSV;c1996)

Computers; Entrepreneur

### TRIUMPH OF THE NERDS 2: RIDING THE BEAR

55 min; color; h,c,a

1/2" VHS **BC0446,VH**

Triumph of the Nerds Series - Tells how the PC industry came of age in the 1980's. This episode takes a close look at Steve Jobs, who co-founded Apple Computer; Bill Gates, who saw Microsoft playing the central role in making the PC future a reality; and IBM, which gave Gates his chance. (AMBROSV;c1996)

Computers; Entrepreneur

### TRIUMPH OF THE NERDS 3: GREAT ARTISTS STEAL

55 min; color; h,c,a

1/2" VHS **BC0447,VH**

Triumph of the Nerds Series - The final episode brings the story of the PC revolution up to date and looks at the seismic changes that are taking place today and their possible impact on tomorrow. Begins at the start of the 1990's with IBM in trouble and Microsoft taking its place as the dominant player in the market place. Ends at the entrance of the Information Superhighway, where we find Silicon Valley, with a generation of nerds looking to find a profitable niche. (AMBROSV;c1996)

Computers; Entrepreneur

### TRIUMPH OF THE NERDS SERIES

TRIUMPH OF THE NERDS 1: IMPRESSING THEIR FRIENDS [BC0445]

TRIUMPH OF THE NERDS 2: RIDING THE BEAR [BC0446]

TRIUMPH OF THE NERDS 3: GREAT ARTISTS STEAL [BC0447]

### UNIVERSITY PRESIDENT

17 min; color; c,a

1/2" VHS **EC2782,VH**

Changing Nature of Work Series - Focuses on the initiation of the Andrew System, one of the earliest computer network environments in an organization, to discuss the concept of organizational change. Richard Cyert, the president of Carnegie Mellon University for 17 years, discusses the initiation of this change, its effectiveness, and the CMU-industry joint venture that created Andrew. Heralds Cyert as one of the key agents in university restructuring and development in the last several decades. (GOODMPS;ROUSDEM;c1996)

Computers; Social change; Universities and colleges

## Computers

### THE VIDEO GAME REVOLUTION

120 min; color; c,a

1/2" VHS **CC6425,VH**

*Part One* covers the history and the early impact of video games on society and culture. Begins with the earliest video games, such as "Knots and Crosses," which was invented in 1952 by A.S. Douglas and played on Cambridge's ESAC, an early computer. Shows the emergence of the "Pong" craze and discusses how video games were initially played in taverns and bowling alleys and then moved to home entertainment. Follows the early success and eventual crash of Atari, and explains how Nintendo and Sony became the leaders in video games. Shows LAN (local area network) parties, particularly "GD Fest," sponsored by the Game Depot, and explains that these parties are a major social event for gamers. Discusses the addictive qualities of video games and the rating system that has been put into place by the Entertainment Software Association. *Part Two* discusses the impact of video games on society and discusses their future. Points out that personal computers have made video games even more prevalent and provided options for players to explore and create. Shows computer games being used in classrooms. Discusses how some groups, like the company Her Interactive, are trying to make games more appealing to women and girls. Shows a video game being tested at the Microsoft Playtest Lab. Various interviewees discuss positive and negative aspects of video games, from increasing sexually explicit and violent content to mind-challenging, problem-solving opportunities. Discusses how games can work as a wish-fulfillment tool or help to build a sense of at least "virtual" community through Multi-Player Online Role Playing Games. Interviews game developers, scholars, and advocates, including Tod "T-Dog" Stovall, a "GD Fest" m.c.; Russell deMaria, author of *High Score*; Nolan Bushnell, the creator of "Pong" and CEO of Atari; Steve Kent, author of the *Ultimate History of Video Games*; Ted Price, president of *Insomniac Games*; Pamela Eakes, founder of *Mothers Against Violence in America*; Dr. Henry Jenkins, director of *Comparative Media Studies* at MIT; Dr. Geoff Loftus, author of *Mind at Play*; Jay Parker, co-founder of *Internet Computer Addiction Services*; Megan Gaiser of *Her Interactive*; Shigeru Miyamoto, creator of *Super Mario Brothers* and *Donkey Kong*; Eran Egozy of *Harmonix Music System*; and Seamus Blackley, the developer of the *Xbox*. Narrated by Greg Palmer. (AMAZON;c2004)

Computers; Games

### THE VIEW FROM THE TOP: MANAGING CHANGE IN THE GLOBAL MARKETPLACE

Looks at how global markets and powerful new competitors are rewriting the rules of business for American CEO's and their counterparts overseas. A handful of corporate leaders are working profound and often surprising changes in their companies. A series of ten probing and candid conversations, journalist Hedrick Smith speaks with executives who are successfully transforming their companies and the industries they compete in.

TAKING RISKS AT INTEL [BC0431]

### VIRTUAL REALITY

26 min; color; c,a

1/2" VHS **BC0402,VH**

From flight simulation to the expressions of the wildest fantasies—some benign and others that require new terminologies for evil—via practical applications in architecture, planning, and design, entertainment for a generation unsatisfied with violent reality; salesmanship that conjures up the virtual reality of the customer's dream; surgical reconstructions that lack only the money to execute them; new definitions of art and the very meaning of reality... with as much head-spinning verve as the product itself, provides a visually multi-dimensional look at the world of computer simulation. (SOBELPA; FFHS;c1993)

Computers

### THE WATCHKEEPERS

27 min; color; h,c,a

1/2" VHS **GC1707,VH**

*Spaceship Earth: A Global Geography Series* - Emphasizes the current status of satellites and computers as tools to manage Earth's resources. This global perspective helps in identifying differences and similarities of places despite political and social barriers. Satellite imaging has helped uncover the Tiahuanacan system of agriculture in Bolivia; this ancient system allowed a yield of potatoes six times greater than modern methods. Computer modeling of weather systems can provide information about the effect of global warming on monsoons. These tools and techniques can be used to meet human needs. (SCETVN;c1991)

Artificial satellites; Computers; Physical geography

### YOU ARE IN THE COMPUTER

58 min; color; h,c,a

1/2" VHS **CC3767,VH**

*Frontline Series* - Examines computerized information systems and the issue of privacy, focusing on a tenant information service that keeps records on more than one million people in Los Angeles county. Points out that such computer-based businesses are increasing and represent a threat to privacy and other rights of the individual. Hosted by Robert Krubvich. *Closed Captioned*. (DOCUCO;PBSV;p1985)

Business ethics; Civil rights; Computers; Consumer education; Philosophy (CPI)

### ZYGOSIS: JOHN HEARTFIELD AND THE POLITICAL IMAGE

26 min; color; c,a

1/2" VHS **RC1551,VH**

Pays tribute to John Heartfield, German pioneer of the photomontage, as it uses electronic mimicry of his methods to portray his career as an anti-Nazi satirist. Explains and illustrates the concept of photomontage, its derivation from mass media, and its appropriation and de-politicization in advertising. Animates archival material culled from Heartfield's life and times both to provide the socio-political context of his work and to showcase a variety of computer generated techniques—such as scratch editing, chroma-key, paintbox, and three dimensional animation—done in a satiric spirit inspired by Heartfield's own work. (BFI;ICAR;r1991)

Art; Artists; Computer animation; Mass media; Photographers; Photography