

# ROCHESTER INSTITUTE OF TECHNOLOGY

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A Thesis Submitted to the Faculty of  
The College of Imaging Arts and Sciences  
In Candidacy for the Degree of  
**MASTER OF FINE ARTS**

Title:

**A New Solution to Corporate Communications:  
An Interactive Multimedia Annual Report**

by:

Teo-Wong, Wen Wan (Kelly)

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**Dedication to:**

My husband, Andrew  
for making everything possible...

**Special thanks to:**

Jim,  
Bob,  
Nancy &  
MaryAnn  
for being very helpful in many ways...

Christine,  
Daniela, &  
all first-year computer graphics design students  
for giving their best assistance in  
setting up the thesis show...

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## INTRODUCTION

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The purpose of this thesis is to create a prototype of an interactive multimedia annual report equipped with text, pictures, graphics, sound, animation and video. The company chosen for this project is AT&T Corporation. This report will touch on the objective and significance of the project, the areas covered in research, the pros and cons of electronic annual reports, and the procedure as well as the outcome of the project.

Successful annual reports are those that not only answer to the needs of the individual company, but also express the management's messages while clearly reflecting the financial condition of the company.

Annual reports have multiple purposes; besides being used to establish and update the company's identity, they are also primary tools for winning over investors. Furthermore they help to achieve specific communications objectives such as explaining an acquisition, showing off new products, correcting misconceptions about the company, or highlighting its technological leadership and achievements.

With such important functions, annual reports must be kept simple, inviting to read and easy to scan, as well as attractive in terms of design. Many graphic designers are introduced to the process of creating the annual report for a corporation every year. As these reports are the most important

publicity and marketing document for many companies, the projects naturally come with a variety of expectations for the designer, as well as assumptions and needs from the company.

The objective of this project is to remove the rigid structure of financial reporting by incorporating interactive media technology, making the individual report come alive for the reader, thus creating a document that is not only illustrative but at the same time entertaining and informative.

The significance of this project is to combine interactive multimedia with brilliant graphic design and apply them to the solution of corporate communications.

Reports these days need to communicate with a variety of audiences in both private and public sectors: shareholders, brokers, stock analysts, lending institutions, employees, customers, competitors, prospective investors, and the media. With such multiple audiences, there are naturally quite a number of considerations and expectations in designing the report.

With the capabilities of interactive multimedia technology – the ability to combine text, pictures, graphics, sound, animation and video – a big step has been taken towards a new concept of corporate communication and annual report design.

For the purpose of this report, the following definitions apply:

**annual report (Company)** A document produced yearly by a company showing the company's achievements, future plans and financial status.

**digitize (Video)** A translation of visual information into computer language, to make it usable and reproducible by computers.

**fiber optics (Telecommunication)** Thin filament of glass through which light beams are transmitted over long distances carrying enormous amounts of data.

**graphical user interfaces (Design)** Interfaces based largely on icons representing actual desktop objects that the user can access and manipulate with a pointing device (often a mouse).

**interactive multimedia (Design)** A presentation program that combines one or more of the following: graphics, animation, sound, video and databases that allow the user to interact with the technology.

**interface design (Design)** Refers to the way the icons and text are arranged, shaped, and colored on the computer screen to provide a coding system for the user to access the program(s) in the computer.

**mechanical (Design)** All elements needed for making printing negatives, pasted in exact positions onto a board that has non-reproducible marks for trimming the pages and indication marks for stripping in actual photos.

**modem (Telecommunication)** Equipment used to send a data signal (digital) over the telephone network, which usually is analog.

**remote access (Telecommunication)** Sending and receiving data to and from a computer.

**PSTN (Telecommunication)** Usually refers to the worldwide voice telephone network accessible to all those with telephones and access privileges.

**QuickTime (Video)** Apple's video compression solution developed for Macintosh.

## REVIEW OF RELATED LITERATURE

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A list of articles and journals were gathered for review from the areas of graphic design, interactive multimedia design, interface design and annual report design.

"Annual reports of the future" (Communication Arts Magazine September 1984) discusses the qualities of a future annual report. They will be friendlier, shorter and more interpretative. They will reflect the pursuit of excellence, in design as well as editorial content. They will be computer-produced, with designers running the computers, and to have impact, annual reports of the future have to be brief, easy to scan and inviting to read, as well as interpretative so that readers know how to judge the information they receive.

The article also states that there is still enormous room for growth in the annual report market. The market for quality annual report design will expand significantly in the coming decade, but clients will be more demanding of their designers than ever. Some people have suggested that the annual report may eventually be replaced by technology – that is, by video report. While video reports may supplement annual reports, the printed word still has advantages which are hard to overcome. These include scannability (video has to view from start to end) and easy portability (you can read it anywhere).

Annual reports need both style and substance. Style can make an annual report distinctive, elegant and enticing. It can also attract attention and encourage readership.

“Annual Report at a Crossroads” (Communications Arts Magazine January 1993) states that an annual report is the most useful source of corporate information. It is the only document that speaks for the entire corporation. The world has changed and the focus is on competitiveness, jobs and value. American corporations today have a greater need than ever before to communicate effectively and designers who meet this need should enjoy strong business success.

Annual Report Design: A Guide to the Annual Report Process for Graphic Designers and Corporate Communicators discusses the importance of annual reports to the companies and designers, as well as the procedures and precautions that both parties need to be aware of in designing, producing, and printing a report. The book also touches on the typical sections in an annual report, and what kind of information to include.

In Ken Coupland’s “Mutating Multimedia” (ID (New York, NY) May 1992), he says that with the introduction of multimedia, clients now expect designers to deliver the multimedia goods. Designers now have a different set of tasks and responsibilities. They need to be concerned with the appearance of information in an interactive format, and determine how it interfaces with the user. As Coupland writes, designers should be



concerned with "The design of information as opposed to the information of design". Designers today have to be more cognitively oriented than those in the past.

"Into The Interface" by Ian Grant (Design (London, England) October 1992) discusses the increasing power of computer hardware such as RAM and hard-drive capacity, which is enabling the user interface to enter a new dimension. The user interface, which is the most tangible part of any software program is starting to play a more important role. Graphical User Interfaces (GUIs), which are based largely on pictures and icons, are often well-received. A MicroSoft and Groupe Bull report showed both beginners and experienced users worked faster and made fewer mistakes with a GUI rather than a TUI (Text-based User Interface). GUIs require a good basic graphic design sense; an awareness of layout, color, texture, imagery, signs, icons, symbols and animation.

The rules for designing interfaces as listed by Grant are:

- Maximize the similarity of major features of the interface (same appearance, occurring in the same place); avoid casual differences.
- Avoid overkill; if there is too much going on in the screen, too many shapes and colors, you are faced with the Las Vegas syndrome where every sign and symbol says "look at me". It may be that a simple black and white functional layout will work better.
- Be aware of the fact that there is a limit to the amount of information the user's short-term memory can assimilate in one go. This applies to all levels of information. Economize and hide complexity.

- There are around 3000 registered typefaces but many aren't suitable at 100 pixels or less. Use no more than three faces, in different sizes and weights. Rely on tried and tested faces. Lines should not exceed 40-60 characters. Centered lists, justified text and text in capitals all slow the reading speed by around 12%.
- Good use of color can increase speed of reaction and make computing more enjoyable but used badly it can mess up displays.
- Make icons intuitive, familiar and easy to learn.

Meera Blattner mentions in his book Multimedia Interface Design that a good user interface can even make up for some weaknesses in the application functionally. He says that multimedia systems strive to take the best advantage of human senses in order to facilitate communication. The interface must incorporate several means for accessing information, including timelines, animated maps, an article index, "tours" and "guides". He stresses that it takes a variety of skills and knowledge to design a good user interface. The success or failure of an interactive program often depends on its user interface.

"Before You Start: Part 1" (Communication Arts Magazine December 1991) and "Before you Start: Part 2" (Communication Arts Magazine January 1992) discusses the issues and steps necessary before starting an interactive multimedia project. One subject on the list is the storyboard which, in an interactive project, is not simply a linear presentation; rather the designer must think in terms of flow charts. It is a map of possible paths the user might choose to take. In a real situation, the

story board is not only meant for the designer and the client, but it is also for the programmer in the project team. Other issues on the list are building a prototype, user-testing, debugging, quality assurance and delivery platform (whether the final product is going to be on CD-ROM or ATM-kiosk).

“The Promise of Multimedia” (Progressive Architecture October 1993) talks about two case studies of multimedia used by architects and academics. Current multimedia functions promise to change fundamentally the nature and services architects can provide their clients. The director of Computer Resources at Harvard’s graduate School of Design sees multimedia as two-pronged: impact and access. Impact is related to presentation and high-quality renderings and animation. Access is an enhanced way of gathering related information in different forms.

“Sound and Vision” (Design (London, England) February 1991) analyzes the potential of multimedia communication, which is the future for client and office presentations. While each medium has previously been considered a completely separate mode of expression, the computer now allows them to converge. The advantages of each mode can be used to present an idea or explain a concept.

The “AT&T Annual Report 1994” (AT&T Corporation, 1994) shows a red cover with a picture of a teenage girl on rollerblades holding a cellular mobile phone. The report is full of text and has low quality pictures poorly superimposed on one another. It has minimum design element, and is boring and dry to read. It does not project and reflect the strong and

powerful image that AT&T has. The reason for using red for the cover is unknown, for AT&T's corporate color is blue.

AT&T has recently put up their annual report on the Internet. The "AT&T Annual Report 1994" (<http://www.att.com>. 1994) is rather comprehensive given the limitations of "html" in terms of design and layout. An attractive montage of pictures was used. It appears to have no movies incorporated but has a message by the CEO, Robert Ellen. By just clicking on the "speaker" icon beside the CEO's picture, the message is downloaded onto the computer in sound format and activated automatically.

### **The pros and cons of electronic annual reports**

#### Pros of electronic annual reports

- Creativity/Design

Multimedia is a hybrid fusion of text, graphics, audio, animation, video and still pictures. The ability to generate photo-realistic pictures, animate images, and incorporate high-quality sound and QuickTime movies makes the report interesting to read.

The ability to play QuickTime movies on the screen allows video clips regarding the company to be incorporated into the report; an example would be a video clip of the CEO delivering his message. The ability to animate images allows the company's logo to be animated as introduction, and the charts and diagrams to be animated in the financial section.

- Accessibility of Information

One of the driving forces in multimedia is the importance of effective and expressive communication. Users are given the flexibility to decide on what information to view according to their preference by clicking on the desired section. There is no requirement to go through regimental sequences.

- Storage

There are a number of ways to store an annual report; high-density floppy disks (with a capacity of 1.4 megabytes), CD-ROMs (with a capacity of 600 megabytes) or external hard drives (capacity varies, typically between 200 megabytes and 2 gigabytes) depending on how large the file is.

- Production

All text, charts, photos, maps and graphics are done on computers. There is no necessity to go through the hassle of typesetting, producing mechanicals, stripping-in of photos, indicating colors, ordering paper, and checking separations, proofs and printing which could take up to several months.

Any retouching, image enhancement and computer images are done on the same computer. There are no paper dummies or color proofs for the clients. What the clients see on the screen is what they will get; no surprises and reproofing needed.

Writing of information on CD-ROMs only requires a fraction of the production time of a printed annual report. An option to print can be incorporated for viewers who need hard copies of the text in the annual report, especially the financial report section.

- Delivery

Delivery or mailing of a 3.5" floppy disk or a CD-ROM is easier, cheaper and more efficient than a 40-page letter-size annual report printed on textured paper. With the advancement of telecommunication, deliveries can even be made by transferring files across the Internet or PSTN (Public Switched Telephone Network) through a modem. With a computer and a modem, an interested party can remotely access into the company's databases as a guest and download a copy of the electronic annual report.

- Lifespan

The lifespan of a floppy disk or a CD-ROM can be infinite (if handled properly) without losing any data or color. Printed materials are exposed to the risk of losing colors and damage by sunlight, moisture and parasites. Storage of printed material requires large amounts of space but archives of digital data only need memory space in a computer.

- Cost

Depending on the size, complexity and quantity, a printed annual report can cost a company between \$250,000 to \$750,00 (Herring 15). The cost of an electronic annual report is not certain, but according to Richmond, a design director who has worked on multimedia projects for several years, revealed that the charges can be "anywhere on the map"; they range from \$28,000 to over \$300,000 (Richmond 220).

- Environmental Issue

There are countless public-listed companies in the world that produce annual reports every year. Some non-profit organizations are producing annual reports too. Hence, millions of reports are produced each year. By storing information on digital format, rather than having them printed on paper, we can indirectly help in the improvement of the environment in terms of saving trees and avoiding pollution.

#### Cons of electronic annual reports

- Portability

An electronic annual report stored on a 3.5" disk or a CD-ROM requires a computer to read. A person on the go, in a car or on a flight would not be able to refer to the annual report unless he has a portable laptop with a CD-ROM drive or a 3.5" disk drive.

- Readability

Text can be kept to the minimum in the corporate profile section but in the financial report section which is basically text and number-oriented, the amount of text is fixed. The point-size of the text has to be large enough for comfortable viewing as reading from the computer screen can be rather straining and tiring to the eye.

- Lifespan of a technology

There are no specific rules as to how long a certain technology can last. The introduction of a more advanced storage media or other kinds of technology may eventually replace the present one.

## PROCEDURE

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The entire electronic report was created on a Macintosh Quadra with a keyboard, a mouse and a number of software packages. The programs used were Macromedia Director, Adobe PhotoShop, Strata Studio Pro, Adobe Premiere, Macromedia SoundEdit Pro, Aldus FreeHand, FusionRecorder, ResEdit and FinderHider. Other equipment used includes a Microtek Scanner, a Joule Portable external hard drive with a capacity of 730 megabytes, a Mac microphone, and a video cassette recorder.

The starting point in designing most reports is a concept or a theme. The initial planning and meeting should take place with all the key players involved: the corporate representative, the designer and the writer. The corporate representative relates the company's message to both the writer and the designer; the writer organizes and edits information given, and the designer sets the visual aspect.

A request was made with the chairman's office for AT&T's recent annual reports, corporate video tapes, and other related brochures. After going through and analyzing all the given materials, numerous sketches were done before an overall theme was generated. A storyboard in terms of a flow chart was created to give an outline of how the report will function. As this was not going to be a linear presentation, a map of all possible paths was needed.



Being the world's leader in providing networking and telecommunications products and services as well as network equipment and computer systems, AT&T's corporate strength must be well reflected in the report in terms of design – a design that not only shows AT&T's professionalism, but at the same time projects an elegant and state-of-the-art image.

As AT&T stresses on global information, that is, "Anytime, Anywhere" communication, an image of a globe is the most suitable symbol to be used as the main theme. A three-dimensional globe is used as background for the initial part of the report and a circle, symbolizing the world, is used for the remaining sections. The 3-D globe was created using Strata Studio Pro and brought into PhotoShop for re-touching.

Based on last year's format, the report was divided into six sections:

- Chairman's message
- AT&T's strategy
- AT&T's people
- Wireless and innovations
- Year in review
- Financial report

A seventh section was added as a movie section showing video clips of AT&T's vision of the future.

The "Chairman's Message" gives the CEO's philosophical reflections and view of the company, how it performed in the past year and what it promises to do in the future. "AT&T's strategy" discusses what strategies

AT&T had been using in the past and will be using in the future. "AT&T's people" introduces its employees, executive committee as well as board of directors. "Wireless and innovation" shows AT&T's new inventions. "Year in Review" reviews all the operations and the major direction of the company, and the financial report sections depicts the company's financial conditions.

Symbols and icons were used in conjunction with text in the "main menu" to add visual interest (refer to appendix 3). Relevant symbols were created to represent each of the six sections – a "book" to represent chairman's message, a "globe" for AT&T's strategy, a "name tag" to represent AT&T's people, a "satellite dish" for wireless and innovations, a "pocket watch" for year in review, and a "bar chart" for the financial section; all of these were created and animated using Strata Studio Pro. The animations were brought into Director as "pict" files instead of QuickTime movies in order to have greater flexibility in manipulation.

The ideal report was to start off with a title screen showing a looping animation of a satellite rotating around a globe (refer to appendix 1). The words "Anytime, Anywhere" appeared on and off until the user clicks on the screen. The user would watch a ten-second, three-dimensional animation of AT&T's logo emerging from the edge of the monitor, swirling, turning and then pausing at the center of the monitor, thereafter followed by a short narrative introduction of AT&T (refer to appendix 2). This would lead to the "main menu" where all the symbols for the seven sections were displayed clearly for the user to pick a section. The mouse cursor would

change whenever it “rollovers” any of the seven sections. The symbol would not animate until the user clicks on it.

Every section would begin with a 5-second animated introduction with music, followed by a sub-menu where the animated symbol would show up again to reassure the location of the user.

As the pictures from AT&T’s past annual reports were insufficient for this project, images from other sources related to telecommunications were used. The images used for all the sub-menus have to be carefully chosen as they must not only relate to the topic, but also have to fit well in the layout (refer to appendix 3 and 5). All pictures were scanned using the MicroTek scanner and put together in PhotoShop on selected backgrounds.

A standard layout was used for all the sections to maintain a sense of consistency and to avoid confusion; however a different background image was used to make it more interesting. All background images were related to the section and were treated with motion-blur filters in PhotoShop to provide a sense of advancement and movement.

The textured background used in the main menu was taken from a CD-ROM “TOTO Textures”, but was altered and treated with several filters in PhotoShop to achieve the desired effect.

The three-dimensional animated logo was done by first scanning a 2D version of the logo and reconstructing in outline form using FreeHand, which was then imported into Strata Studio Pro to create the animation. Premiere was used for editing and cropping the animation.

In terms of navigation, all choices were displayed clearly. The symbols, the main menu button and the movie button were reduced and arranged on the left side of all the screens to allow users the flexibility to go to any section from any page by just making their selections on the left panel. The "help" section is accessible from any page in the report, and is in the form of "balloon" help. By rolling over the mouse on any button, a short explanation appears.

A "map" section is also provided for users who lose their way in the report or need an overview of it (refer to appendix 8). It displays the headlines of all articles in the six sections, and users can click on any of them to go to that screen. The map was derived from the flow chart that was created in the beginning.

New age music tracks were used as introductory, as well as background music, to enhance AT&T as an innovative, vibrant and technological company. Sound of touch-tone phones and trimphones were used for the responding sound of the buttons. The music was recorded via a CD-ROM drive using SoundEdit Pro which was also used for editing and blending of music with narratives. The sounds were recorded using a Mac microphone.

There were five 20-second movies in the movie section depicting AT&T's vision of the future. The movies were taken from a 20-minute video tape provided by AT&T. This 20-minute long movie was broken down into several short movies to allow greater flexibility and user-interaction. The

choices were displayed clearly in the movie menu by showing the first screen of every movie to give the viewers an idea of what to expect. From one movie, they were able to go to another without returning to the movie menu. Users have the ability to pause, rewind, play as well as adjusting the volumes of the movies by the control panel provided. All movies were uncompressed to have better image quality and smoother transition.

Digitization of the video was done by connecting a VCR to a Macintosh with AudioVisual capability, and by using the program, VideoFusion to capture the images. The digitized movies were brought into Premiere for editing and finally into Director as QuickTime movies.

The design of cursors was done using ResEdit and imported into Director as resources. Again, the design of the cursors were related to the sections – a microphone for chairman’s message, a globe for strategy, the face of a man for people, a cellular phone for wireless and innovation, “1994” for year in review and a stack of paper for financial section.

As this report is just a prototype, the financial section has not been completed. Financial reports are basically heavily text-based, therefore, charts and diagrams are animated to add visual interest.

All still pictures, sound, text, graphics, animation and video were put together using Macromedia Director (an interactive and animation program).

## RESULTS

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This project was completed as anticipated, fulfilling all the objectives stated in the beginning, and I feel the result is more than satisfactory.

As this report is targeting at a variety of audiences, numerous people were needed to test the effectiveness of this electronic report. Individuals from different fields – students, secretaries, designers, executives, computer experts, engineers and professors – were used for the experiment and many valuable comments and feedback were derived.

Working executives liked the professional and corporate-looking interfaces; designers appreciated the well-planned design and three-dimensional animation; first-time computer users enjoyed the easy-navigation and user-friendliness.

The “map” section seemed to be a popular spot for non-computer users as they were able to look at the entire report at a glance. No one seemed to require the help section as all the buttons are basically self-explanatory. The movie section was also a popular section as people were always fascinated at watching movies from a computer screen.

No serious problems were encountered during the process of creating this report. The hardest part of the whole process is setting the theme and mood for the report. The ideal layout was achieved only at the third attempt; which means totally eliminating the previous layout and

starting anew. With the final attempt, many improvements were still needed before arriving at the final stage.

A great deal of time was spent on thinking of the relevant symbols to represent each section and how they should be displayed on the main menu. The final symbols were derived after much experimentation.

Another problem encountered is time constraint. As three-dimensional images require a great amount of time to experiment, model and render, all the three-dimensional images were kept simple in shape and texture. If time permits, more elaborate and sophisticated three-dimensional animation would be desirable.

Several attempts were also made in creating the three-dimensional animation of the AT&T logo. A choice had to be made between the logo with concrete texture or the one with glass texture; the latter one was chosen because the glass texture relates to the fiber optics technology that AT&T is presently using.

There are areas which require improvement. In the "Wireless and Innovation" section, instead of having only the descriptions of the products displayed, more visual interest and user-interactivity could be achieved by incorporating pictures of the products in a "slider" form. The user would be able to click on the slider to view the products with a short description. Improvements can also be made on the charts in the financial section; the colors could be brighter and other forms of charts could be used instead of pie charts. The charts could also be three-dimensional to have greater visual interest.

Every screen is treated as a piece of design; it must be pleasant to the eye in terms of color, layout and choice of typography. Every element on the screen – the images, the icons and the location of the buttons – must be well-balanced in terms of weight and tone.

Past experience in annual report designs has enabled me to foresee and overcome certain problems that are usually encountered by designers. New problems were tackled and solved with the assistance of the thesis advisors.

The entire report, inclusive of the QuickTime movies, totalled 270 megabytes in memory. This is definitely not a major problem as a CD-ROM can store up to 600 megabytes of digital information. By using the program, CD Toaster, and a Kodak 2X CD-writer, the entire project was later written on a TDK CD-ROM. The exact writing time is only 15 minutes.



## S U M M A R Y

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With interactive multimedia, annual report design now enters a new dimension – a more effective way of corporate communication.

As annual reports have a variety of audiences and hold important roles in most companies, getting the right message across to the audience is critical. With interactive multimedia, not only text, graphics and pictures can be incorporated in an annual report, but sound, animation and video can also be included to further enhance a company's image. Users have the flexibility to view information according to their preference.

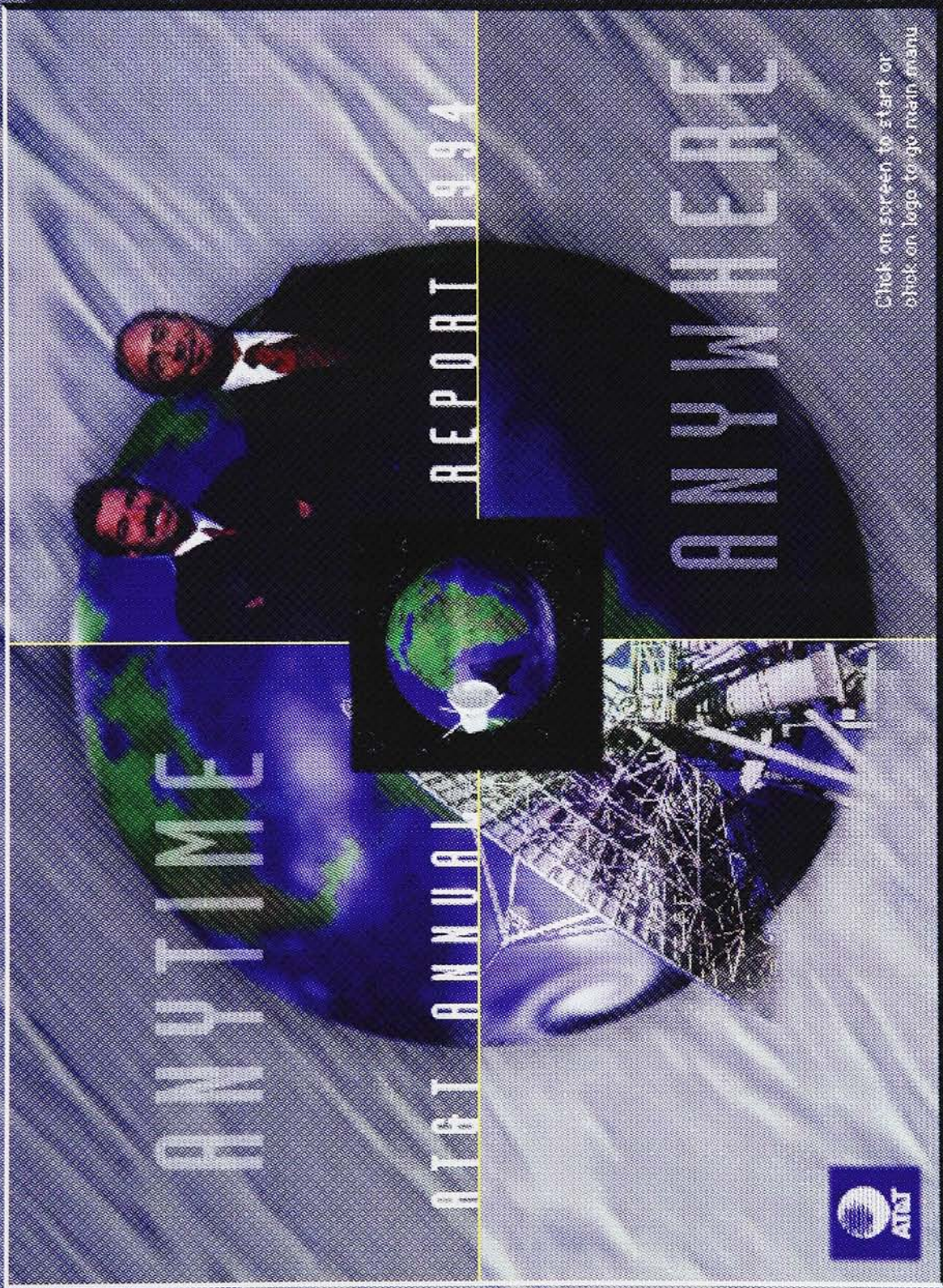
The success or failure of an interactive program often depends on its user interface. In order to achieve effective communication, the interface design and user-interactivity of an electronic report has to be appealing and user-friendly; the editorial content has to be short and interpretive. Most importantly, the report must project quality and build confidence in the company, and at the same time convey its message effectively.

The introduction of interactive multimedia has also significantly increased a designer's responsibility; the designer has to be concerned with both design and information, as well as how they interact with the user.

## APPENDIXES

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ANYTIME

AT&T ANNUAL

REPORT 1994

ANYWHERE

Click on screen to start or  
click on logo to go main menu





AT&T is the world's networking leader,  
providing communications  
services and products,  
as well as network  
equipment and  
computer  
systems, to  
businesses,  
consumers, tele-  
communications  
services providers  
and government agencies.

Our Worldwide Intelligent Network  
carries more than 150 million voice

data, video and facsimile messages every  
business AT&T Bell Laboratories  
engages in basic research  
as well as product  
and service deve-  
lopment. AT&T  
also offers a  
general-purpose  
credit card and  
financial and lea-  
sing services. AT&T  
does business in some  
200 countries.



Click on monitor to replay



Click on screen to continue

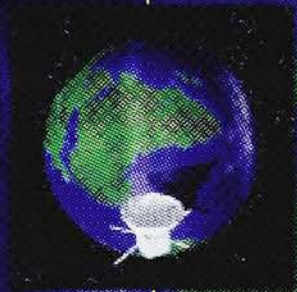


# MAIN MENU

chairman's message



AT&T's strategy



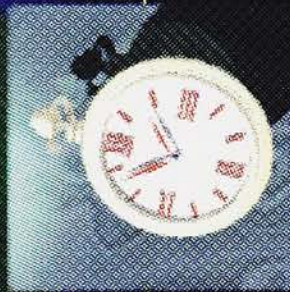
AT&T's people



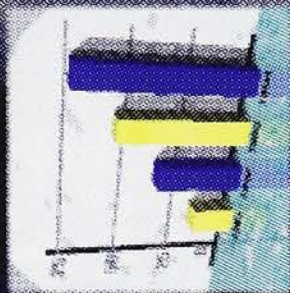
wireless/innovation



year in review



financial section

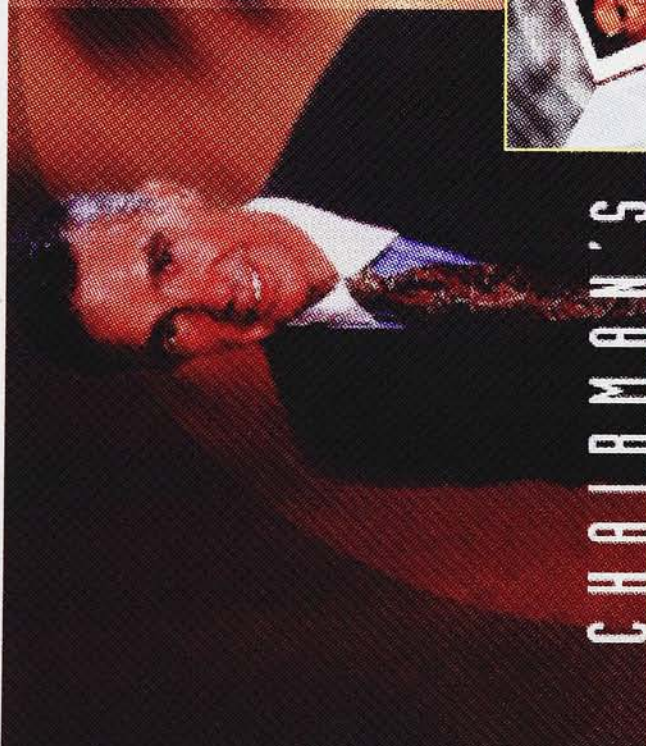


Rollover and click on one of the sections...



QUIT





CHAIRMAN'S

Welcome to AT&T

Introduction

These past 10 years have been a learning experience

Pullover and make a selection...

MESSAGE



The best way to compete is to get closer to each customer

We have a new mission and what we believe is a winning strategy



MAP	▶
HELP	QUIT





## CHAIRMAN'S MESSAGE



### Introduction

We intend to lead as providers of communications and information systems that make businesses more productive and enhance people's personal lives. Our road map will be the mission and strategies discussed in this annual report.

It was a year of growth for AT&T. We overcame a disappointing economy and emerged competitively stronger. Revenues increased across our business, both in the United States and in other markets. Our bottom line shows a loss of \$2.80 a share, but that includes companywide charges that we took for accounting changes as well as a fourth quarter restructuring charge at one of our units.

With out those charges, we earned \$3.15 a share, or 10 percent better than 1992's results. 1993 will be remembered as the year when the concept of an Information Superhighway captured everyone's imagination. The good news

is that it's more than a concept. Much of the Information Superhighway, in the form of intelligent, high-capacity networks like ours, already exists.







Wireless

AT&T's products and services

Roll over and make a selection...

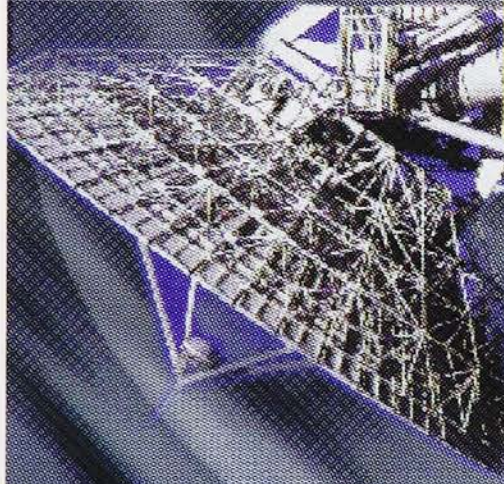
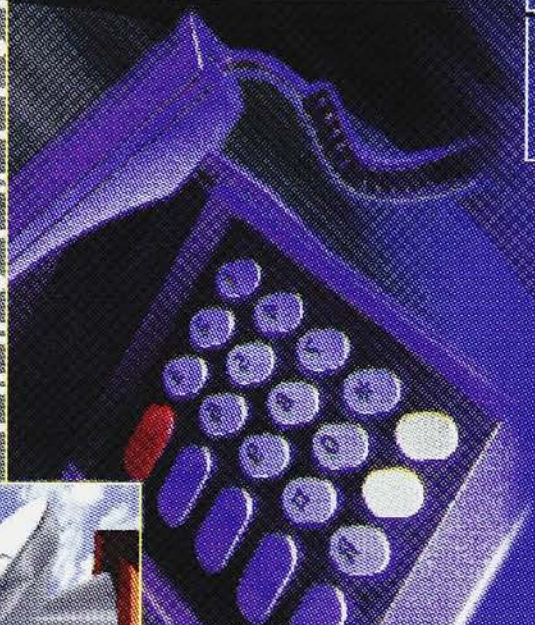
WIRELESS &

INNOVATION

Innovation and Technology

AT&T ANNUAL REPORT 1994

MAP	▲
HELP	QUIT







## WIRELESS & INNOVATION



### Wireless

**Our challenge is to find innovative ways to give people what they want: mobility and simplicity**

There's a sea change under way in telecommunications – as bold as the move from horses to the automobile. Wireless technologies enable true anytime, anywhere communications via voice, data, images and messages.

Multimedia adds an extra dimension by engaging several of our senses at once. The wireless market is blazing.

Together, service and equipment is a \$40 billion market that is expected to double by 1996.





## BIBLIOGRAPHY

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### Periodicals:

Backlund, Nicholas. "Focus on User Interface" ID (New York, N.Y.)

March/April 1991: 84.

Coupland, Ken. "Mutating Multimedia (a Hybrid Fusion of Text, Graphics, Audio, Animation, Video and Film)." ID (New York, N.Y.)

May/June 1992 : 46-55.

Cox, Donna. "Caricature, Readymades and Metamorphosis: Visual

Mathematics in the Context of Art." Leonardo 1992 : 295-302.

Franke, H.W. "The New Visual Age: The Influence of Computer Graphics on Art and Society." Leonardo 1985 : 105-107.

Grant, Ian. "Into The Interface." Design (London, England) October 1992 :

34-35.

Hancock, Marlon. "Sound and Vision" Design (London, England) February

1992 : 46-47.

Lewis, Richard. "Annual Reports of the Future." Communication Arts

Magazine September/October 1984 : 24-28.

Lewis, Richard. "Annual Reports at a Crossroads." Communication Arts

Magazine January/February 1993 : 18-19.

Richmond, Wendy. "Before You Start: Part I." Communication Arts

Magazine December 1991: 118-9.

Richmond, Wendy. "Before You Start: Part II." Communication Arts

Magazine January/February 1992 : 216-7.

Teicholz, Eric and Yu, Larry. "The Promise of Multimedia." Progressive

Architecture October 1993 : 89-92.

"Annual Report: more than just financial information." Industrial

Photography November 1991 : 24-27.

Books/Manuals/Reports:

Blattner, Meera and Dannenberg, Roger. Multimedia Interface Design. New

York : ACM, 1992.

Beene, Lynn. The Riverside Handbook. Boston : Houghton Mifflin

Company, 1992.

Graphis Annual Reports. Zurich (Switzerland): Graphis Press Corp., 1988.

Grinling, Jasper. The Annual Report: a guide to planning, producing and

promoting company reports. Brookfield: Gower, 1986.

Herring, Jerry. Annual Report Design: A Guide to the Annual Report

Process for Graphic Designers and Corporate Communicators. New

York : Watson-Guptill, 1990.

Lewis, Richard. Annual Reports: Conceptions and Design of Annual

Reports New York: Hastings House, 1971.

Madsen, David. Successful Dissertations and Theses. San Francisco :

Jossey-Bass, 1992.

Sydow, Dan Parks. QuickTime Macintosh Multimedia. New York : MIS

Press, 1994.

AT&T Annual Report 1993. AT&T Corporation, 1993.

AT&T Annual Report 1994. AT&T Corporation, 1994.

AT&T Annual Report 1994. <http://www.att.com>. AT&T Corporation, 1994.

Director. Vers. 4.0.4. Computer Software. Macromedia Inc., 1994.

FreeHand. Vers. 4.0. Computer Software. Altsys, 1988-93.

FinderHider. Vers. 1.0. Computer Software. Andrew Green, 1993-94.

FusionRecorder. Vers. 1.0.2 Computer Software. VideoFusion Inc., 1994.

PhotoShop. Vers. 2.5.1. Computer Software. Adobe Systems Inc., 1993.

Premiere. Vers. 2.0 Computer Software. Adobe Systems Inc., 1992.

ResEdit. Vers. 2.1.1 Computer Software. Apple Computer Inc., 1991.

SoundEdit Pro. Vers. 2.0.1. Computer Software. Macromedia Inc., 1994.

Studio Pro. Vers. 1.0 Computer Software. Strata Inc., 1992.