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THE LIGHTSPAN PARTNERSHIP, INC.

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APR 26 1996
FCC MAIL ROOM

April 17, 1996

Mr. William F. Caton, Acting Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington, DC 20554

Re: CC DOCKET 96-45

Dear Mr. Caton:

DOCKET FILE COPY ORIGINAL

Today, Jon Bernstein, Legislative Counsel for The Lightspan Partnership, and I met with Jeanine Poltronieri, Mindy Ginsburg, Lygeia Riccardi, Deborah Dupont, and Mark Nadel of the FCC; Terry Monroe of the New York Public Service Commission; Charlie Bolle of the South Dakota Public Utilities Commission; Paul Pederson of the Missouri Public Service Commission; Debra Kriete of the Pennsylvania Public Utility Commission; Lorraine Kenyon of the Alaska Public Utilities Commission; and Brad Ramsay of the National Association of Regulatory Utility Commissioners in order to demonstrate Lightspan's educational and interactive programming. Lightspan is providing a means of connecting all children, rich and poor, to educational technology and to the national information super highway.

The Lightspan Partnership is a pioneer in building partnerships with educators, families and industry to expand the learning opportunities of children by extending the school day into the home. Lightspan's mission is to support national educational improvement by bridging schools and homes with curriculum, via the latest in interactive technology. At Lightspan, experts in education, software design and entertainment have joined together to create engaging interactive curriculum programming in reading/language arts and mathematics for kindergarten through grade six.

The discussion focused on the need to extend the learning day into the home in order to increase the amount of time children spend on learning, involve parents in their children's education, and provide teachers with on-demand access to professional development opportunities. The discussion also focused on universal service issues and the costs of on-line and internet charges, especially in cases where children are accessing the internet from home as well as from school. Additional information will be provided in this area at a later date. The enclosed packet of information and video tape were distributed at the demonstration.

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In accordance with Commission Rule 1.1206(a)(1) and Public Notice DA 95-211, released February 10, 1995, two copies of the letter are being filed with you for inclusion in the public record. Please contact me if you have questions. I can be reached at (202) 776-0103.

Sincerely,

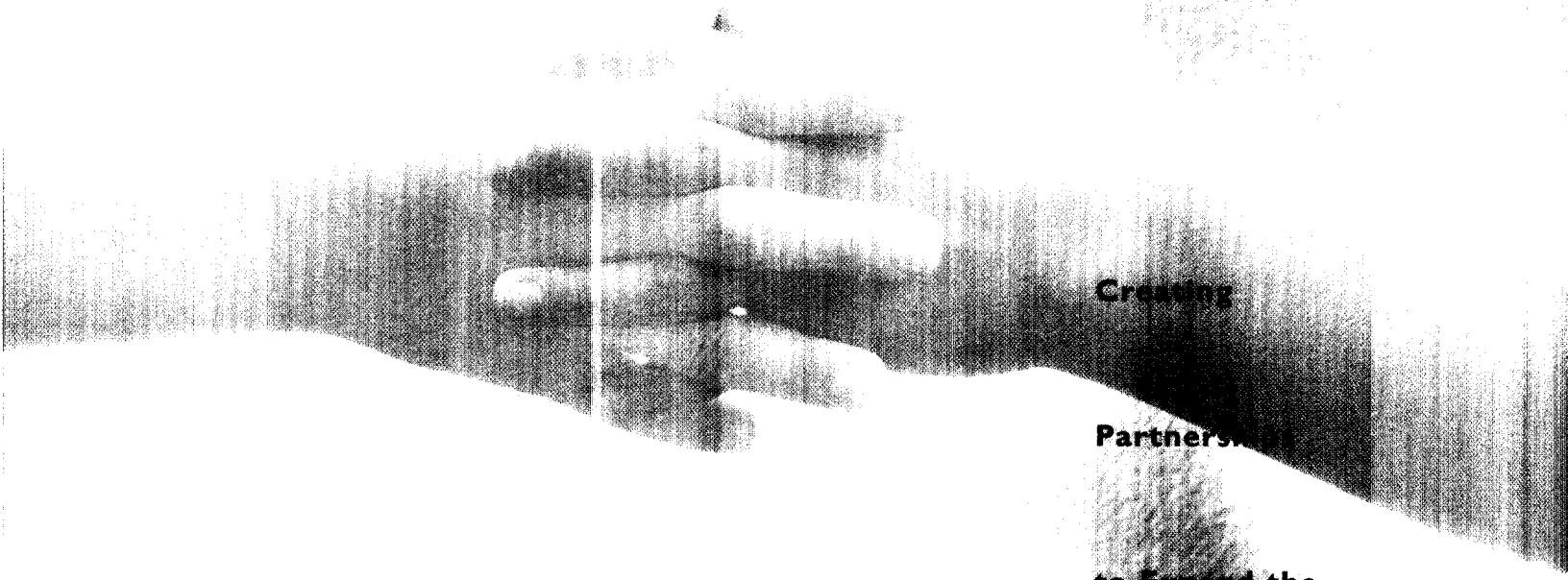
Ilene Rosenthal

Ilene Rosenthal
General Counsel and Vice President
for Government Affairs

Enclosures

cc: Charlie Bolle
Deborah Dupont
Mindy Ginsburg
Lorraine Kenyon
Debra Kriete
Terry Monroe
Mark S. Nadel
Paul Pederson
Jeanine Poltronieri
Brad Ramsay
Lygeia Riccardi

THE LIGHTSPAN PARTNERSHIP, INC.



Creating Partnerships to Expand the Learning Opportunities of America's Children

BRIDGING
Schools and Homes

An Introduction

to The Lightspan

Partnership, Inc.

LIGHTSPAN WORKS WITH COMMUNITIES THAT AIM TO RESTRUCTURE AND RETOOL THEIR SCHOOLS TO ACHIEVE IMPORTANT EDUCATION REFORM GOALS.

Bridging Schools and Homes: A Key Step in Restructuring Education

By helping to build a continuous learning environment between schools and homes, Lightspan assists communities in meeting today's education reform goals.

MORE TIME FOR LEARNING

A recent Department of Education study entitled "Prisoners of Time" found that pressures on U.S. school schedules result in the average American student spending just three hours per school day on core curriculum—one-half that invested by students in other developed nations, and one hour less than the time American students typically spend each day on entertainment television and video games. By bridging schools and homes with compelling interactive curriculum, with just an hour of "after-school" use per school day, Lightspan can add the equivalent of *two years* of learning time to the typical K–6 career.

GREATER FAMILY INVOLVEMENT

Increasing family involvement in schooling is essential to improving student achievement. Lightspan brings the school curriculum home, helping families to engage in schoolwork, collaborate on lessons, view parent-oriented programming, and with Lightspan's on-line service, even communicate with their children's school.

INCREASED EQUITY OF ACCESS TO TECHNOLOGY

The best information and learning resources must be available to all students. With Lightspan, every student and family in the school community —regardless of socioeconomic status—has the same ready access to powerful learning tools of the highest quality.

RICHER, MORE FLEXIBLE PROFESSIONAL DEVELOPMENT

Lightspan provides teachers with convenient, on-demand access to professional development programming and on-line resources, both at school and in their homes. With flexible access to expanded resources and increased opportunities for professional collaboration, teachers are able to assume more control over accelerating their own professional development.

The Lightspan Offering: The Right Elements for Expanding the Learning Environment

BREAKTHROUGH LEARNING TOOLS FOR SCHOOL AND HOME

At the heart of the Lightspan offering is comprehensive, interactive curriculum programming in Reading/Language Arts and Mathematics for children in grades K–6. Lightspan's affiliate publishers provide curriculum programming in other subject areas as well as professional-development and family-involvement resources. Every Lightspan program provides a basis for helping students acquire a deep understanding across the entire curriculum and to apply skills and knowledge successfully in school and throughout their lives.

Solid Curriculum Foundations

Lightspan's programming is closely correlated with emerging goals and standards being set forth by leading states and by national professional organizations, including the National Council of Teachers of English, the International Reading

Association, and the National Council of Teachers of Mathematics, among others. The Company's product development process is guided by a Curriculum Advisory Board of nationally recognized teachers and curriculum specialists.

Serious Learning that Children Love to Do

Storytelling and hands-on learning have always been two of the most effective teaching tools. With Lightspan, teachers add to their tool set the first programming ever to combine the educational depth of comprehensive curriculum with the motivational power of interactivity, stories, characters, and production techniques equaling the best that the entertainment industry has to offer. After other homework is completed, Lightspan's motivating educational programs effectively compete for additional "after-school" hours to increase the time spent learning.

Powerful and Flexible Teaching Tools

Lightspan's programs are powerful new tools that teachers use to enhance their current curriculum materials. Lightspan is used to reinforce current lessons, introduce new concepts, or present difficult concepts in a new way. Teachers present concepts to the entire class or assign [illegible] small groups or individually, in school or at home, to work with Lightspan. Instructional support materials and activities for school and home help extend students' understanding and their family's involvement.

PARTNERSHIPS FOR DEVELOPMENT AND INNOVATION

Restructuring to take full advantage of new opportunities such as Lightspan takes thought and planning that involve the entire school community. We facilitate that process by providing initial staff-development and family-involvement training and consulting, led by experienced classroom practitioners.

Working with Lightspan also means entering a community of fellow pioneers of the school–home connection. Working together via the Internet-based LightSource™ service, educators and parents nationwide share information and new ideas about improving teaching and learning practices.

Finally, a partnership with Lightspan means new opportunities to work with some of the nation's leading telecommunications and technology companies, many of whom are actively working with us to realize the school–home connection.

LIGHTSPAN CREATES BREAKTHROUGH CURRICULUM-BASED LEARNING TOOLS THAT CHILDREN LOVE TO USE.

LIGHTSPAN EXPANDS THE LEARNING OPPORTUNITIES OF AMERICA'S CHILDREN BY EXTENDING THE SCHOOL'S LEARNING ENVIRONMENT INTO THE HOME.

BUILDING THE BRIDGE WITH LIGHTSPAN

PROGRAMMING BUILT FOR THE NEW GENERATION OF DELIVERY SYSTEMS

Just as text-and-graphics "multimedia" replaced text-only computing in the mid-1980s, a new media standard is rapidly emerging today—the digital video format. Digital video eliminates entirely the distinction between television and computers—combining the full-screen quality of film with the stimulating interactivity found in CD-ROMs and video games. With interactive digital video becoming a standard feature in most new PCs, existing "multimedia" formats will rapidly become obsolete.

Lightspan has created the first curriculum programming specifically for the interactive digital video format. Schools using Lightspan can take full advantage of a new generation of affordable digital video delivery devices, which are rapidly being developed by the nation's leading telecommunications and consumer electronics companies. As importantly, it means that Lightspan is the programming that students and their families will still find compelling for school and home use for years after current "multimedia" has been eclipsed.

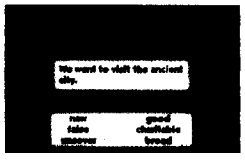
DELIVERING LIGHTSPAN TODAY

Rapid declines in the price of computer processing speed and storage have made digital video capabilities a standard feature in both personal computers and a growing variety of affordable consumer devices. Today, Lightspan programming is available on both Windows and Macintosh "PC/TVs" and several television set-top boxes—"smart" interactive video players that connect to a regular television set. These easy-to-use devices provide much the same functionality as a computer and are significantly less expensive, with prices continuing to decline rapidly.

In school, Lightspan is implemented on stand-alone PC/TVs using CD-ROMs or via in-school data or video networks. CD-ROM discs bring the curriculum home, where it can be delivered either on PC/TVs or via a school-owned set-top box attached to the family television set. By placing affordable stand-alone workstations in students' homes, schools gain the opportunity to integrate homes into the learning environment and begin to establish powerful new connections between teachers, families, and students. From both schools and homes, teachers and students have access to on-line data services, including Lightspan's Internet service, providing additional educational resources and opportunities for professional collaboration.

DELIVERING LIGHTSPAN TOMORROW

Cable television and telephone companies nationwide are in the process of creating interactive digital video distribution networks extending throughout entire communities. These systems, which are expected to reach millions of homes by the turn of the century, use the same digital video standard and much of the same technology as the devices and networks running Lightspan today. In many communities, we expect to work with schools and telecommunications companies to establish a full distribution network between schools and homes that provides direct, two-way access to interactive video, voice, and text.



An Alliance to Expand Learning Opportunities

The **Lightspan Partnership** is a growing alliance of leaders in the fields of elementary education, interactive software design, telecommunications, and entertainment. This alliance was formed to help educators and families provide all children with the rich and challenging education they need to thrive in a diverse society and a competitive, information-based global economy.

Lightspan works with communities that aim to restructure and retool their schools to achieve important education reform goals. We offer a long-term partnership with one central mission—to enrich the school's learning environment and then to extend that environment into every child's home.

As a partner in this process, Lightspan contributes a range of vital tools—breakthrough interactive instructional materials, new technology solutions for delivering them to the classroom and home, and carefully designed professional-development and family-involvement services. All these tools are specifically developed to create a powerful new school–home connection.

The Lightspan Partnership is creating partnerships with educators, families, and businesses to develop powerful learning tools for today's educational challenges. We look forward to working with you to meet these challenges together.

THE LIGHTSPAN PARTNERSHIP, INC.
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THE LIGHTSPAN PARTNERSHIP, INC. | **NEWS RELEASE**

For Immediate Release

President Clinton announces the award of $9.5 million in technology grants to school districts nationwide, praising an alliance between the State of Delaware and The Lightspan Partnership as a model for instructional innovation. With the President in the Roosevelt Room of the White House were, from left, Vice President Al Gore, Disney's Michael Eisner, Ted Turner, and Gerald Levin of Time Warner.

Clinton Announces "Challenge Grant" Award to Delaware and The Lightspan Partnership

President Cites School-Home Connection Project as Model Public-Private Partnership

WASHINGTON, DC, Tuesday, October 10 -- President Clinton announced today that The Lightspan Partnership and the Capital School District in Dover, Delaware, in concert with the Delaware State Department of Public Instruction, were joint recipients of a federal "Challenge Grant" for a project to connect schools and homes with interactive curriculum programming and technology.

The President's announcement came as part of a White House address on the Administration's initiatives to increase access to educational technology.

Flanked by leaders from education telecommunications, and the media industry, Clinton singled out the Delaware/Lightspan partnership as a model for public-private alliances:

"...We're going to work together to help our schools use technology to revolutionize American education so that all children will be able to learn better and teachers will be able to be more effective.

"...Today, I'm announcing three steps forward that show we are turning these principles into reality. First, we're awarding Technology Learning Challenge Grants to 19 communities. In each community, there's a partnership of educators, businesses, libraries, museums, and community groups that have come together to retool their schools for the 21st century....They are committing hardware and software, hard work, and know-how. For example, in Dover, Delaware, Bell Atlantic, The Lightspan Partnership and the State Education Department are linking homes and schools through family TV sets to improve reading and arithmetic in the early grades. This is how these partnerships will work.

"Let me say that it costs a very modest amount of money....this is the kind of thing that the nation ought to be doing now in the area of education and the sort of thing I will be trying to preserve as we negotiate the shelves of the budget discussions."

Shortly after the President's address, Senator Joseph Biden (D-DE) met with officials at the Towne Point Elementary School in Dover, DE to present the first check in the $5.5 million, 5-year matching grant. The Capital School District represented the State of Delaware as lead educational agency in accepting the grant from the Interagency Technology Task Force, U.S. Department of Education. The grant will be used to bring new technology and Lightspan curriculum-based programming to schools and to thousands of student homes throughout the state. Each of the state's 15 school districts will be served, with special emphasis going to schools serving lower-income families. Matching funds and in-kind donations will be provided by the Delaware State Department of Education and The Lightspan Partnership, Inc. Other participants in the project will include cable operators, Tele-Communications, Inc. and Comcast Corporation, WHYY Public Television in Wilmington, DE, Cable in the Classroom, and Bell Atlantic, among others.

The Capital/Lightspan project application was one of only 19 selected from over 500 Challenge Grant applications throughout the country. It was based on the success of a demonstration project conducted by the Towne Point School and The Lightspan Partnership beginning in early 1995.

Lightspan's interactive instructional programming is designed to correlate with and extend the typical school's curriculum in mathematics and reading. The programming can be used on computers, as well as on much less expensive "digital set-top" devices that connect to a normal family television set. Families receive these devices on loan from the school, allowing children and their parents to use powerful, interactive curriculum programs during time typically spent on entertainment television or video games.

In a survey conducted following the initial Capital/Lightspan project, nearly half of participating parents reported that their child typically spent an hour or more per day working with the Lightspan curriculum programming at home, in addition to their normal homework. The remainder reported an average of one-half to one hour of additional learning time per day.

"Not only are our students working with technology on school-related projects five hours per week or more," said Towne Point Principal, Gene Capers, "but we're seeing the parents working right along side their children much of the time. I think we're beginning to see a new era where highly motivating and effective educational programs such as Lightspan are taking the place of traditional television viewing in our children's lives."

Ms. Gerri Graham, Principal of Richey School in Red Clay, DE, which will also benefit from the award, said, "This couldn't be more perfect or come at a better time. As the Principal of a school with many children living at or near the poverty level, it has been a dream of mine to have computers for our children to use at home and I can't believe that my dream is coming true so soon!"

For more information, contact:

Dr. William McGlumphy
Assistant Superintendent
Capital School District
945 Forest Street
Dover, DE 19904-3498

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e.mail: Stacey_Sultar@Lightspan.com

THE LIGHTSPAN PARTNERSHIP, INC.

GENERAL ADVISORY BOARD

The Lightspan Partnership's General Advisory Board comprises educational leaders, academicians, and business executives who help Lightspan identify and understand educational trends and issues and how these may impact the company's continued growth and direction.

Henry Jay Becker, Ph.D.—Associate Professor of Education at the University of California at Irvine and a widely published and respected expert on evaluating the effectiveness of educational technologies.

Terrel H. Bell, Ed.D.—Former U.S. Secretary of Education during the Reagan Administration and author of the landmark report *A Nation at Risk*. In semi-retirement, Dr. Bell continues to trailblaze as he explores effective family involvement and the school–home connection.

Gordon L. Berry, Ed.D.—Professor of Education and Psychology, University of California at Los Angeles, has worked at the nexus of television and education for over two decades. In addition to his work as a researcher and teacher, Dr. Berry currently serves as a consultant for children's programs at CBS.

Bonnie Bracey—A classroom teacher for over 20 years, a Christa McAuliffe Educator, and a Challenger Fellow. Ms. Bracey was recently appointed by the U.S. Department of Commerce and Vice President Gore to represent U.S. K–12 education as one of 26 members of the National Information Infrastructure (NII) Advisory Committee.

David L. Brittain—Recently retired as Chief of the Bureau of Educational Technology for the State of Florida and is now a private consultant. Over a long career, Mr. Brittain was instrumental in establishing Florida as a national leader in the educational technology movement.

David Garcia—President of Mindware and former Program Director of *Education First*, the entertainment industry initiative to create alliances in support of public school improvement. Mr. Garcia also was formerly Executive Producer and Director of Development for dramatic series, NBC Television.

Nelson B. Heller, Ph.D.—Principal of Nelson B. Heller & Associates, publisher of The Heller Report on Educational Technology and Telecommunications Markets, sponsor of the annual EdNet Conference, and consultant to clients including AT&T, U.S. West, Bell South, Ameritech, Nynex, and many leading school publishers.

Paul Houston, Ed.D.—Executive Director of the American Association of School Administrators, the professional organization of school CEOs. A longtime educational administrator, Dr. Houston is a committed spokesman for school improvement and reform.

Robert Hughes—Recently retired Boeing Corp. executive and a frequent speaker on the issues of educational technology and school reform. Mr. Hughes is a member of the Board of Education, Lake Washington School District, and a consultant to the National School Board Association's Technology and Learning department.

John C. Ittelson, Ph.D.—Professor, Center for Telecommunications, Multimedia, and Applied Computing, California State University, Monterey Bay. Dr. Ittelson is a leading researcher and teacher on multimedia instructional design and consults extensively with major publishers and the California State Department of Education.

Bobbi L. Kamil, Ph.D.—Executive Director of Cable in the Classroom, the U.S. Cable TV industry's outreach program to provide instructional resources to the nation's schools. Dr. Kamil is widely known in the education and cable television worlds as a leading innovator.

William Kirby, Ph.D.—Former Commissioner of Education for the State of Texas and a spokesman for innovative approaches to school improvement and reform. Dr. Kirby is nationally recognized as a school finance and federal programs expert.

Maria M. Klawe, Ph.D.—Vice President, Student and Academic Services, University of British Columbia. Dr. Klawe is also the co-founder and project director of a pioneering study into the use of video games in mathematics education, with special emphasis on gender issues.

William D. Lynch—Founder, William D. Lynch Foundation for Children. A philanthropist-businessman and strong advocate for early involvement with reading materials and literacy tasks in the home. Appointed by State Superintendent Delaine Eastin to co-chair the California Reading Task Force, Lynch quickly immersed himself in the issues surrounding literacy acquisition and is referred to by many as the unofficial "ambassador" for education to the business community.

Floretta Dukes McKenzie, Ed.D.—President of the McKenzie Group, a comprehensive educational consulting firm. Dr. McKenzie is a former Superintendent of the District of Columbia Public Schools and a former Deputy Assistant Secretary in the U.S. Department of Education.

Seymour Papert, Ph.D.—Currently LEGO Professor of Learning Research and Director of the Epistemology and Learning Group, Massachusetts Institute of Technology (MIT), and Chairman, LCSI. Dr. Papert has published several books, including *Mind Storms* and *The Children's Machine*. Also, he has written numerous articles on education, epistemology, psychology, and mathematics.

Dorothy Rich, Ed.D.—President, Dorothy Rich Associates, Inc. Dr. Rich is founder and Executive Director of the Home–School Institute, which trains parents in 48 states to support classroom instruction. She is a longtime advocate for the importance of the "home–school connection."

Harold P. Seamon, Ed.D.—Deputy Executive Director of the National School Boards Association (NSBA). Dr. Seamon is responsible for coordinating the development of NSBA's programs and services to state school boards associations and local school boards throughout the nation.

Dale Seymour—Recently retired founder of Dale Seymour Publications. This former educator and entrepreneur is a leading authority on the use of practical approaches to teach mathematics. Still much in demand as a speaker, Seymour continues to advocate a strong school and home mathematics program.

Bernard C. Watson, Ph.D.—Chairman of the Board of the HMA Foundation, Senior Vice Chairman of the National Urban League, and member of numerous corporate boards, including Comcast Corporation. Over a long and distinguished career as an educator, Dr. Watson has been a teacher, counselor, and principal in the public schools of Indiana, Deputy Superintendent of the school district of Philadelphia, Professor of Urban Studies and Urban Education, and Academic Vice President of Temple University.

James K. Zaharis, Ed.D.—Superintendent, Mesa (Arizona) Unified School District, author, and motivational speaker. Among a long list of current professional responsibilities, Dr. Zaharis serves on the Board of Advisors of the National Center for Family Literacy, as a member of the Commission on Excellence in Education, and AASA's Instructional Leadership and Technology Committee.

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THE LIGHTSPAN PARTNERSHIP, INC.

CURRICULUM ADVISORY BOARD

The Lightspan Partnership's product development process is guided by a Curriculum Advisory Board, whose members meet frequently with Lightspan curriculum staff in hands-on sessions to critique and contribute to the emerging curriculum.

In addition, several noted leaders in curriculum development work as Senior Curriculum Associates, consulting with Lightspan development staff on a day-to-day basis.

Curriculum Advisory Board Members

Harriette Johns Arrington, Ph.D.—Professor in the Department of Curriculum and Instruction at the University of Kentucky. Dr. Arrington, a reading professional, is a former public school teacher and curriculum administrator. Among her research interests is oral language development and enrichment through storytelling, reading aloud and speaking skills.

Jay S. Blanchard, Ph.D.—Professor in the Reading/Library Science Department at Arizona State University. Dr. Blanchard is a popular literacy and communications consultant to school districts and publishers and chairs the International Reading Association's (IRA) Technology, Communication, and Literacy Committee.

William E. Cross Jr., Ph.D.— Professor in the Department of Psychology at Penn State University. Dr. Cross is a psychologist whose research focuses on the areas of family, identity, and education in the African-American community.

Bernice Cullinan, Ph.D.—Professor of Early Childhood & Elementary Education at New York University. Dr. Cullinan is a past president of the International Reading Association (IRA) and has received numerous honors from her peers for leadership in children's literature and literacy, including election to IRA's Reading Hall of Fame.

Kay Gilliland, Ph.D.—Executive Director of EQUALS, a nonprofit organization based at the Lawrence Hall of Science, UC Berkeley, which researches and publishes issues of gender equity in instruction

Lois Ann Hesser, Ed.D.—Professor in the Program for Child and Youth Studies, Abraham S. Fischler Center for Advancement of Education, Nova Southeastern University. Dr. Hesser's primary focus is the use of instructional technology delivery of teacher education via telecommunications delivery such as the Internet.

Janie Hydrick, Ph.D.—Past President, National Council of Teachers of English, a widely published author on language arts issues and, currently, a classroom teacher. Dr. Hydrick also provides leadership in the teaching standards field as a member of the National Board for Professional Teaching Standards and the Advisory Board of the English/Language Arts Study Project.

Mary Lester, Ed.D.—Director, Training and Development of the Dallas Independent School District, and a consultant on mathematics and multiculturalism to numerous large school districts and educational publishers. Dr. Lester is a longtime member of the National Council of Supervisors of Mathematics.

Twila C. Liggett, Ph.D.—Creator and Executive Producer of the long-running children's series READING RAINBOW, winner of six Emmy Awards, including Best Series (1990). Dr. Liggett recently received special recognition from the International Reading Association for her contributions to worldwide literacy.

Dorothy Lloyd Ed.D.—Dean, Collaborative Education and Professional Studies, California State University, Monterey Bay, Cal-State's newest campus. Subsequent to this latest appointment, Dr. Lloyd was Associate Dean and founding faculty, California State University, San Marcos She is an educational innovator focusing on curriculum and instruction.

Josefina Tinajero Ed.D.—Assistant Dean and Professor at the University of Texas, El Paso, and a prominent author, researcher, and teacher in the field of bilingual education and family involvement. Dr. Tinajero's primary focus is to encourage a home environment that supports academic achievement.

Rena Upitis, Ed.D.—Dean, Faculty of Education, Queens University Ontario. A mathematics educator with an emphasis on the visual arts, Dr. Upitis is a key member of a team conducting pioneering research on video-game technology in mathematics education.

<u>**Senior Curriculum Associates**</u>

Nicholas Branca, Ed.D.—Executive Director of the California Mathematics Project working to implement the National Council of Teachers of Mathematics (NCTM) standards in California schools through teacher training. Dr. Branca is a Professor of Mathematics at San Diego State University.

Jim Flood, Ph.D.—Professor San Diego State University is President of the National Reading Conference. He is currently serving as co-chair of the Visual Arts Committee for the International Reading Association (IRA) and co-editor of a Handbook for Literacy Educators: Research on Teaching the Communicative/Visual Arts.

Judith Jacobs, Ph.D.—Director, Center for Education and Equity in Mathematics, Science, and Technology (CEEMaST), and professor, California State University, Pomona. Dr. Jacobs' research focuses on gender and equity issues in mathematics. She is actively involved in implementing the NCTM standards. In 1994 she was Voted Outstanding Professor of the Year.

Diane Lapp, Ed.D.—Professor, San Diego State University. Dr. Lapp is co-editor of *The Handbook of Research on Teaching the English Language Arts*, a member of the California Reading Association Hall of Fame, and a frequent contributor to professional journals.

Teri Perl, Ph.D.—A consultant and author on innovative curriculum design with an emphasis on women in mathematics. Dr. Perl was a co-founder of The Learning Company, one of the nation's leading publishers of educational software.

CAB3

THE LIGHTSPAN PARTNERSHIP, INC.

GAME ADVISORY BOARD

Lightspan has established an advisory board comprising leaders in the area of interactive entertainment and education "games." This group meets regularly with Lightspan design staff to review and contribute to the interactive experience being offered in Lightspan's products.

Gilman Louie, Chairman—Founder, Chairman, and CTO of Spectrum Holobyte, the world's largest PC entertainment company. Mr. Louie has led Spectrum Holobyte in the development and marketing of numerous hit entertainment titles, including the award-winning *Falcon*™ flight simulator, the Russian computer game *Tetris*™, and several titles based on Paramount's *Star Trek: The Next Generation*™ properties, among others. Mr. Louie has long been active with the San Francisco Board of Education, currently serving on two committees for the S.F. Unified District. He is a past president of the San Francisco School Volunteers. Mr. Louie has been actively involved in interactive design on Lightspan's *Mars Moose*™ and *str.at.e.s*™ projects.

Johnny Dawkins—A Writer/Producer who has worked on several popular television series and children's specials, including *Star Trek: The Next Generation*™, *Lou Grant*™, *St. Elsewhere*™, *Brewster Place*™, *Booker*™, *The Color of Friendship*™, *The Wave*™, and *The Hero Who Couldn't Read*™. During the course of his career, Mr. Dawkins' shows have earned several awards including an Emmy, a Peabody, a Christopher, a Gabriel, and an Image Award, as well as a Humanitas Award nomination and two Writer's Guild of America Award nominations.

Jeff Jonas—Game Designer for Blue Sky Software. Mr. Jonas has been a key designer of several successful titles for the Sega platform, including *Jurassic Park*™, *Roadrunner & Coyote*™, *Super Offroad to Baja*™, and *Ren & Stimpy*™.

Eileen McMahon—A children's media consultant for over 15 years, Ms. McMahon has worked for numerous educational and entertainment companies including Activision, Buena Vista Home Video, Children's Television Workshop, and Columbia Pictures, among others. She holds a master's degree from Harvard University in interactive media for children.

Jason Roberts—Director of Panmedia, a media services firm specializing in the production of and consulting for both computer-based and conventional media. An expert on personal computers and interactive technology, he has published three books, authored a syndicated column, and contributed to periodicals such as the *New York Village Voice* and the *San Francisco Chronicle*. His most recent work is the book/CD-ROM package *Director Demystified* published by Peachpit Press.

Edward Zobrist—principal of Zono, Inc., a freelance game consultancy. Mr. Zobrist has designed or been a design consultant on titles including Mattel's *S. Glove Ball*™ (Nintendo's "Most Innovative Game of 1990"), Sega of America's *X-Men II* and *Jurassic Park*™, Electronic Arts' *TechnoClash*™, and several major Sega Saturn titles yet to be announced. Mr. Zobrist is currently working with director Oliver Stone on the development of an interactive software company.

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2382 Faraday Avenue, Suite 300 • Carlsbad, CA 92008-7218 • Tel (619) 929-5900

THE LIGHTSPAN PARTNERSHIP, INC. | **PUBLIC POLICY BACKGROUNDER**

The School–Home Connection and National Education Reform: New Opportunities and Solutions

EXECUTIVE SUMMARY

A. Introduction

Today we are in the midst of a global transformation made possible by the development of digital telecommunications networks. When coupled with the power of advanced computers, these networks will enable people throughout the world to share almost unlimited amounts of information—text, data, images, video, and sound.

Despite this digital revolution, the way Americans teach, learn, transmit, and access information in the schoolroom remains largely unchanged from a century ago. The textbook remains the basic unit of instruction, and absorption of its contents is the measure of educational success. Students are often the recipients of instruction rather than active participants in learning.

The advent of the digital revolution presents a rare opportunity to address some key problems facing education today. By using new and relatively inexpensive technology, Lightspan will forge a new school–home connection that will make it possible for all families to:

- be connected to their schools via interactive technology
- access interactive educational multimedia content in their homes any time
- significantly enhance the learning that takes place at school
- extend learning beyond the physical boundaries of the school building and the current time limits of the school day

B. Key Problems Educators Face and Lightspan's Solutions

In a recent report, *Prisoners of Time* commissioned by the U.S. Congress, the National Education Commission on Time and Learning identified four key problems that are hindering education in the United States. These problems and Lightspan's solutions to them are offered below:

1. The Lack of Time for Learning

Students in the U.S. spend less than 2.8 hours of their school day learning core curriculum subjects such as mathematics, reading, and science. This is half of the amount of time spent by their European and Japanese counterparts on similar subject matter. Although it is well recognized that students need to spend more time on core academic subjects if they are to meet world-class education

standards, lengthening the school day or the school year is not a feasible solution since the national cost of adding even a single day of school would exceed $1.1 billion.

Rather than lengthening the school day or the school year, Lightspan is using new interactive television technology to extend the learning day into the home through direct school–home connections. Students in the U.S. spend approximately 70 percent of their waking hours outside of school. At Lightspan, we are creating interactive programming that combines the educational depth of comprehensive K–6 curriculum with the motivational appeal of video games. Teachers can use the interactive curriculum in their classroom during the day, and students can interact with it in their homes after school. Because the Lightspan curriculum is entertaining as well as educational, students are motivated to use it. Therefore, it is not surprising that students who used the Lightspan curriculum in their schools and homes increased the amount of time they spent on their reading, language arts, and mathematics studies by a minimum of one-half hour to more than one hour per day.[1]

2. The Lack of Family Involvement

Studies show that the most accurate predictor of a student's achievement is not income or social status, but the extent to which a family creates a home environment that encourages learning, expresses high but not unrealistic expectations about their children's achievement and future careers, and becomes involved in their children's education. Unfortunately, the emergence of single-parent and two-income households, as well as the problems of alcohol, drugs, and adult illiteracy, inhibit rather than reinforce parental involvement in the education process.

By providing the home with access to interactive educational television, Lightspan not only will extend serious learning into the home, but also will allow parents to see what their children are learning in school. As Congressman Ed Markey recently observed after being shown a demonstration of the Lightspan programming, when "Little Mary or Johnny is doing homework in the middle of the living room, eyes glued to the family television...Mom and Dad can't avoid knowing what their daughter or son has for homework."

3. The Lack of Professional Development for Teachers and Staff

To educate students successfully, teachers must keep pace with changing content standards by receiving ongoing course work in their disciplines while continuing to teach their subjects. But by the time they finish with their teaching and administrative responsibilities, many U.S. teachers have no time left to attend professional development courses or engage in educational discourse with their colleagues.

Lightspan allows our nation's teachers' time to continue to educate themselves by making high-quality professional development materials readily accessible. With teachers able to interact with Lightspan professional development programming in their homes and offices, they will no longer need to cart around bulky manuals and attend seminars after a full day's work. Instead, at their

[1] Survey done by the Capital School District in Dover, Delaware.

convenience, they will be able to access expert teacher tutorials that Lightspan is developing, as well as communicate electronically with their colleagues to share their experiences. In this way, Lightspan's programming permits teachers to find the time to develop continually their knowledge and their skills.

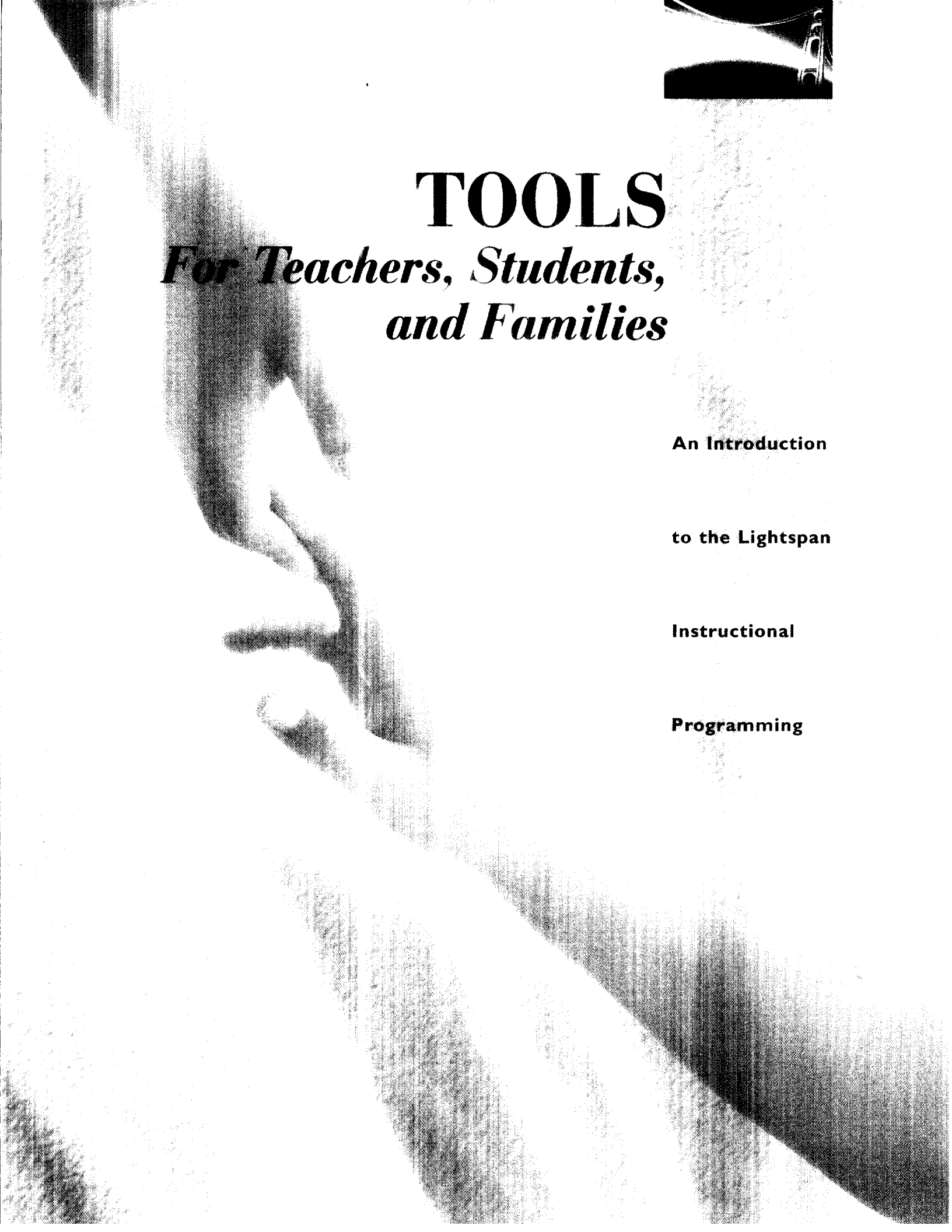
4. Inequitable Access to Technology

The ability of a U.S. student to access a computer, which is fast becoming a prerequisite for a high-quality education, depends to a large extent on the socioeconomic status of the student. Less than 5 percent of students from low-income homes have computers, compared to over 50 percent of students from high-income homes. By contrast, approximately 99 percent of all homes have a television set. The dilemma for educators, therefore, is how to prepare students for a world that is dependent on computers and telecommunications technology when schools do not have sufficient technology and few low-income students have access to the technology in their homes.

Lightspan proposes to rectify this disparity in access to technology by using the pre-existing television infrastructure as the basis for delivering high-quality interactive educational curriculum programming into the home. While television viewing is currently a passive activity, the convergence of television and computer technologies today can turn ordinary television sets into digital monitors that can provide as well as receive information. This technological wizardry is accomplished by connecting the family television to a digital video "multiplayer," an inexpensive device that has the ability to give the family television set the functionality of a computer. The digital video devices also are able to connect into cable and telephone lines so that multiple homes can share interactive content and service via the Internet and other means By using the television set and the interactive digital video multiplayer as one of several means of delivering Lightspan programming, Lightspan hopes to help prevent this country from being divided into a nation of technological "haves" and "have nots."

C. Conclusion

Through its content-based interactive programming and its strategy to extend learning beyond the school day, the Lightspan Partnership offers a potential solution to the four major ailments that afflict the U.S. school system—the lack of time for learning, the lack of parental involvement, the lack of teacher access to professional development materials, and the inequitable access to educational technology. By making a school–home connection the centerpiece of its strategy to improve learning, Lightspan extends the school day into the home, draws parents into their children's educational lives, provides teachers with the opportunity to develop their knowledge and their skills, and allows all students, regardless of socioeconomic status, to receive technology's educational benefits.



TOOLS
For Teachers, Students, and Families

An Introduction to the Lightspan Instructional Programming

An Introduction To The Lightspan Programming

The Lightspan instructional programs are organized into Worlds representing development levels and corresponding to three grade tiers. Each World consists of several adventures that contain interactive games united by compelling story lines and engaging characters. In addition to the Worlds, students within each grade level have access to application tools and a constructivist environment that encourages students to construct meaning through their own multimedia authoring.

THE LIGHTSPAN READING/LANGUAGE ARTS PROGRAMMING

The goal of Lightspan's Reading/Language Arts programming is to ensure that all students succeed in the six language arts—listening, speaking, reading, writing, viewing, and producing.

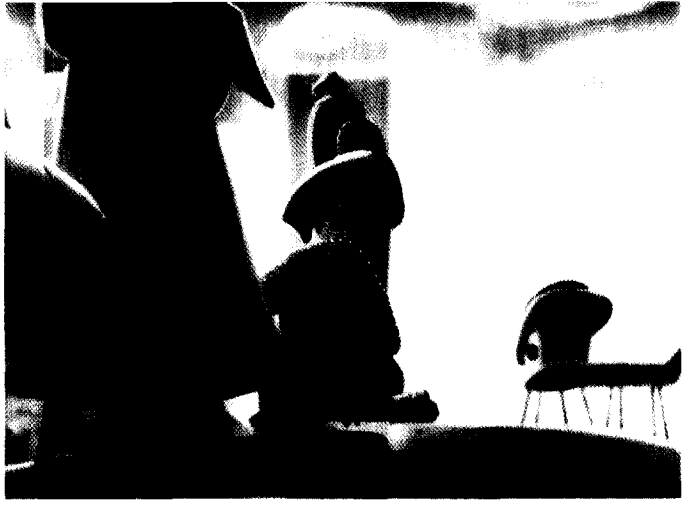
Contemporary literacy educators teach reading and language arts through many different programs. Some programs stress the whole language approach, others stress decoding and comprehension skills and strategies, while still others focus on a literature-based approach. Lightspan's Reading/Language Arts curriculum balances authentic language experiences rooted in literature and other meaningful contexts against a foundation of decoding, reading, and vocabulary skills and strategies.

Lightspan's Reading/Language Arts programming presents concepts through engaging activities that introduce a wide range of literacy objectives and that encourage students to return to them again and again, providing repeated practice crucial to long-term retention. This student-directed format promotes the expansion of reading and language arts skills, develops communication skills, and nourishes a positive attitude toward books and literacy.

The Adventures of Mars Moose (Grades K–2)
The Adams Street Rangers are befriended by Mars, a lovable blue moose from another galaxy, and his dog Cosmo. On Mars' planet, they no longer use reading as a form of communication, so Mars becomes interested in learning to read and in understanding how people on Earth live and communicate. Mars exhibits a zest for learning as he masters strategies for developing language skills and for dealing with problems that arise in new environments and situations.

Mona & Moki (Grades 3–4)
Mona and Moki's adventure begins when they are mysteriously transported from their art class to a miniature town called Snetha—a mixture of ancient Greek culture and 1950s American architecture. Now, Mona and Moki must travel through the town, completing a variety of comprehension and problem-solving activities to collect the keys needed to return them to normal size.

str.at.ə.s. (Grades 5–6)
Max, Sara, Jessica, and Tony are next-century teenagers working on a special communications project with Ms. Stafford, a close friend of their teacher. The project involves str.at.e.s.—an application on the Worldwide Neuro Web that allows them to access any time or place in the past, present, or future. A malfunction causes each of them to travel to various places in the U.S. during the 1800s. Students meet important historical figures, solve problems, use reading strategies, and develop a broader vocabulary as they try to return to the present day.



THE LIGHTSPAN MATHEMATICS PROGRAMMING

NCTM standards recognize that students need a high degree of mathematical literacy to function in today's complex information society. Not only must students understand and master the basic concepts of mathematics, but also they must develop a spirit of inquiry, a sense of exploration, and a degree of comfort with mathematical ways of thinking. Lightspan's Mathematics curriculum encourages students to value mathematics, to become confident in their mathematical abilities, to view themselves as mathematical problem solvers, and to learn to communicate and reason mathematically.

The interactive activities in Lightspan's Mathematics programming expose students to a set of varied and interrelated experiences that help them develop mathematical habits of mind. Students are encouraged to explore, to make and test hypotheses, and to engage in many different types of problem-solving situations so they gain confidence in their ability to solve complex problems.

The Secret of Googol (Grades K–2)

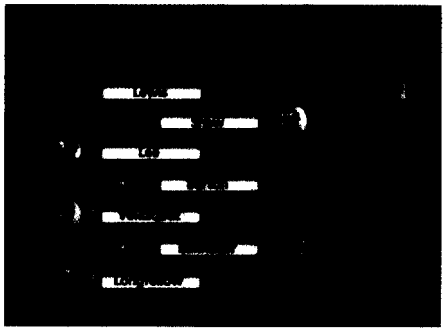
While Alana and Ben are involved in one of their many after-school projects, Cali, a friendly Googolian, appears and takes them on an adventure in the fantastic land of Googol where they encounter the flamboyant Wigsley and his sidekick Flinch. Students follow Alana, Ben, and Cali as they encounter various problem-solving approaches to investigate and understand mathematical concepts. When Alana and Ben return home, their adventures in Googol have helped them find answers to their real-world mathematics problems.

The Quaddle Family Mysteries (Grades 3–4)

The Quaddle Family Mysteries is an interactive mystery theater set in the Quaddle Family Museum. All the characters in the Quaddle Family are named after scientists or mathematicians and provide students with various models for mathematical thinking and problem solving. In each adventure, students must solve a mystery by collecting clues from various places in the museum. Students explore the hallways and rooms of the museum solving mathematical problems and puzzles along the way. After students have solved the mystery for a particular content area, such as Measurement, they may return to the museum and explore the rooms, practicing and applying the concepts introduced earlier.

Timeless Math (Grades 5–6)

In *Timeless Math*, students travel through time and space in a series of interactive adventures. As they explore the world of the Maya or the interior of a space station, students encounter both mathematics and diverse cultures. Each adventure includes four modules that require various uses of mathematics concepts. Students encounter fast-action adventure games, use mathematical concepts in culture-specific applications, collaborate to solve larger system-oriented problems, and acquire and analyze information to assess their progress.



THE LIGHTSPAN AFFILIATE PROGRAMS

The Lightspan Affiliate Programs extend and enhance the core Reading/Language Arts and Mathematics programming. The Affiliate Programs provide teachers, families, and students with ready access to critically acclaimed educational programs from distinguished publishers and designers. Lightspan's Affiliate Programs provide additional opportunities for interactive learning, professional development, and collaboration between schools and homes.

Story Lane Theater by Rabbit Ears and *16 Tales*, published by the Agency for Instructional Technology (AIT), add an extensive literature and multicultural collection. Imagination Machine's *Write Away* is a monthly magazine that features stories written by Lightspan students. Three science series, *Science Is Elementary* and *Head to Toe*, both by AIT, and *Minds-On Science* by Tom Snyder Productions, include investigation and inquiry components. Social studies includes three programs from Pine Ridge Productions, *Ancient Egypt*, *Immigrating to America*, and *The Great Depression*. *The Family Education Encyclopedia*, from Instructional Objectives Exchange (IOX), allows parents to access video clips on a variety of educational topics. The *Every Child Can Succeed* series from AIT offers professional development for teachers, providing extensive case studies of successful schools using a variety of educational strategies.