

# CONCURRENT SESSIONS

## THURSDAY, NOVEMBER 6

9:00am – 6:00pm

### **ASTC Strategic Planning Meeting**

Radisson Riverfront/Kellogg 1

*Board and Committee Chairs only*

6:30pm – 9:00pm

### **ASTC Conference Program Planning Committee**

Radisson Riverfront/Wabasha 3 & 4

*Members only*

7:30pm – 8:45pm

### **ASTC New Board Member Orientation**

Radisson Riverfront/Presidential Suite

*Members only*

## FRIDAY, NOVEMBER 7

7:30am – 7:00pm

### **Conference Registration Open**

7:30am – 9:00am

### **ASTC Advocacy Committee**

Touchstone Energy Place/Room 10

*Members only*

8:00am – 10:00am

### **ASTC Membership Committee**

Touchstone Energy Place/Room 2

*Members only*

8:00am – 5:00pm

### **Speakers Ready Room**

Touchstone Energy Place/Show Office 1

8:00am – 5:00pm

### **TEAMS Exhibit Collaborative**

Touchstone Energy Place/Room 9

*Members only*

8:00am – 6:00pm

### **Exhibitor Installation/Exhibit Hall**

*Exhibitors only*

10:00am – 11:30am

### **ASTC Development Committee**

Touchstone Energy Place/Room 10

*Members only*

10:00am – 11:30pm

### **ASTC International Committee**

Touchstone Energy Place/Room 5

*Members only*

10:00am – 11:30am

### **ASTC Equity/Diversity Committee**

Touchstone Energy Place/Room 2

*Members only*

11:30am – 12:30pm

### **ASTC Finance and Audit Committee**

Touchstone Energy Place/Room 5

*Members only*

12:15pm – 2:15pm

### **ASTC Professional Development Committee**

Touchstone Energy Place/Room 13

*Members only*

1:00pm – 2:00pm

### **ASTC Executive Committee**

Touchstone Energy Place/Room 10

*Members only*

2:30pm – 5:00pm

### **ASTC Board Meeting**

Touchstone Energy Place/Room 5

*Board members only*

4:30pm – 5:30pm

### **Orientation for First-Time Conference Delegates**

An opportunity for new delegates to learn more about the ASTC Annual Conference and meet other first-timers.

Touchstone Energy Place/Rooms 11 & 12

*First-time conference delegates only.*

5:00pm – 7:00pm

### **Promoting Dialogues on Diversity: Conference Fellows and Alumni Fellows Reception**

Science Museum of Minnesota/Argon Room

*By invitation only*

6:00pm – 7:30pm

### **St. Paul Welcomes You! Receptions**

Informal gatherings organized by the Science Museum of Minnesota.

6:00pm – 9:00pm

**Teacher Educator Network (TEN) Dinner and Discussion**

Radisson Riverfront/Kellogg 1

Come network with colleagues involved in teacher education at science centers. Join us to share information about your teacher programs, brainstorm new ideas, and participate in an interactive presentation/discussion on the impact of the No Child Left Behind Act on teacher professional development.

*Your hosts:* Elsa Bailey, Director of Programs, Smithsonian Center for Education and Museum Studies, Washington, DC; Amy Lowen, Director of Education, Louisville Science Center, Kentucky; Sally Middlebrooks, Director, Education Project, ASTC, Washington, DC; Beryl Rosenthal, Director of Exhibitions and Public Programs, MIT Museum, Cambridge, Massachusetts; Dennis Schatz, Associate Director, Pacific Science Center, Seattle, Washington; and Lee Schmitt, Director, Teacher Programs, Science Museum of Minnesota, St. Paul. With support from National Science Teacher's Association (NSTA) and the Discovery Channel.

*Preregistration required.*

7:00pm – 9:00pm

**Board of Directors Reception**

Hosted by the Science Museum of Minnesota

*By invitation only*

**SATURDAY, NOVEMBER 8**

7:00am – 5:00pm

**Conference Registration Open**

7:00am – 5:00pm

**Speakers Ready Room**

Touchstone Energy Place/Convention Office 1

7:30am – 5:00pm

**Information/Message Center Open**

7:30am – 8:30am

**Meet and Greet Breakfast**

Touchstone Energy Place/Ballroom

Gather informally with your colleagues over a continental breakfast and get better acquainted with those who share your perspectives on the science center and museum field.

*Sponsored by Clear Channel Exhibitions*

8:30am – 8:55am

**Welcoming Remarks**

Touchstone Energy Place/Ballroom

Walter R. T. Witschey, *President, Association of Science-Technology Centers, and Director, Science Museum of Virginia, Richmond*

Bonnie VanDorn, *Executive Director, Association of Science-Technology Centers, Washington, D.C.*

Robert M. Gavin Jr., *Interim President, Science Museum of Minnesota, St. Paul*

8:55am – 9:05am

**Jim Brandenburg's Minnesota**

The Science Museum of Minnesota welcomes ASTC delegates to St. Paul with a spectacular high-definition video produced specially for our conference by Minnesotan Jim Brandenburg, one of the world's most accomplished nature photographers. From the north woods to the prairie, through winter, spring, summer, and fall, Jim Brandenburg's art reveals the unique beauty of Minnesota's wild places and creatures.

9:05am – 9:30am

**ASTC Fellow Award**

Touchstone Energy Place/Ballroom

ASTC presents the ASTC Fellow Award for Outstanding Contribution to museum/professionals who have provided exemplary service to the science center field and advanced the public understanding of science and technology.

9:30am – 10:15am

**Keynote Address**

SA1

Touchstone Energy Place/Ballroom

**Who's on First? Why a Constant Learning Process Is Essential for Science Museums**

Journalist, media executive, and Pulitzer prize-winning editor **Michael Gartner** is currently chairman of Vision Iowa, a \$225 million program that helps to fund major attractions throughout the state, and principal owner of the Iowa Cubs baseball team. In his keynote address, Gartner will meld his media, business, and professional sports perspectives to show why an organization must continually be engaged in learning to remain relevant to the people it serves.

*Sponsored by Clear Channel Exhibitions*

10:15am – 10:35am

**ASTC Business Meeting**

Touchstone Energy Place/Ballroom

*Open to all*

9:00am – 5:00pm

**ASTC Job Bank**

Touchstone Energy Place/Convention Office 2  
Open to all

10:30am – 6:30pm

**Exhibit Hall Open**

Open to all registered delegates

10:00am – 12:30pm

**Lunch Concession in Exhibit Hall Lobby**

Open to all

11:00am – noon

**Live Demonstration Hour**

Touchstone Energy Place/Exhibit Hall  
New date, new time, same exciting show! Join your colleagues in the Exhibit Hall for an hour of live demonstrations.

*Demonstration host:* Eddie Goldstein, Senior Space Science Educator, Denver Museum of Nature & Science, Colorado

11:30am – 11:50am

**SPEAKERS FORUM**

Touchstone Energy Place / Room 2

**Are Traveling Kits Still a Viable K-12 Outreach Component?**

Jane Snell Greenberg, Museum Coordinator, Bell Museum of Natural History, University of Minnesota, Minneapolis

Touchstone Energy Place/ Room 3

**Nature in the City**

Don Luce, Curator of Exhibits, Bell Museum of Natural History, University of Minnesota, Minneapolis

Touchstone Energy Place / Room 4

**A Demographic Snapshot**

Richard Fedele, Outreach Manager, National Optical Astronomy Observatory Visitor Center, Tucson, Arizona

Touchstone Energy Place / Room 5

**Outreach Education and the Marketing Genius Within**

Angie Newell, Science-By-Van Coordinator, Science Museum of Virginia, Richmond

Touchstone Energy Place / Room 6

**Contextual Design in Informal Learning Environments**

Jessica Strick, Exhibit Developer, The Exploratorium, San Francisco, California

Touchstone Energy Place /Room 7

**Using Evaluation in an Earth Sciences Exhibit**

Linda Kucik, Exhibits Department Chair, California Academy of Sciences, San Francisco, California

Touchstone Energy Place / Room 8

**Travel with Us to Universum's Children's Area: Tour a Research Lab and Be a Primate Researcher**

Alejandra Alavarado Zink, Head of Biodiversity Hall, Universum, Museo de Las Ciencias, UNAM, Mexico City

Touchstone Energy Place / Room 9

**GO! Team: A Model Program for Getting Girls Excited About Science and Technology**

Diane Palazzi, Manager of Community and Mentorship Programs, Peggy Notebaert Nature Museum, Chicago, Illinois

Touchstone Energy Place / Room 10

**Implementing Low-Cost Virtual Reality Systems in Science Museums Through Collaborations**

Ronen Mir, Executive Director, SciTech Hands On Museum, Aurora, Illinois

Touchstone Energy Place / Room 11

**Expertise—For Profits or Fun?**

Robert Laidler, General Manager, Oak Hammock Marsh Interpretive Centre, Stonewall, Manitoba, Canada

Touchstone Energy Place / Room 12

**Museum Programming with Live and Preserved Animal Specimens**

Juan-Carlos Solis, Public Programming Coordinator, California Academy of Sciences, San Francisco, California

**Concurrent Sessions: 12:30pm – 1:45pm****No Mission/No Margin: Steadily Improving Your Financial Performance SA2**

Touchstone Energy Place / Room 2

In tough times or terrific, how do you make decisions about which programs to cut and which to nurture? In typical, fast-paced CEO Forum fashion, participating directors will share their best examples of program decision making. The Mission/Margin Matrix, a way of assessing a program's value to an institution, will be presented as a useful tool.

*Session leader:* Walter R. Witschey, Director, Science Museum of Virginia, Richmond, Virginia.

*Presenters:* To be announced

**Communicating Risk****SA3**

Touchstone Energy Place / Room 3

In dealing with subjects that pose a risk to the individual or to society, such as public health issues or natural disasters, one challenge is to promote awareness of the problem without alarming the population. This session will cover development of exhibitions on four risk-related topics: the volcano Popocatepetl, tuberculosis, and hazards of daily life.

*Session leader:* Elaine Reynoso, Universum, Direccion General de Divulgacion de la Ciencia, Mexico City, Mexico

*Presenters:* Charlie Walter, Interim Director, Fort Worth Museum of Science and History, Texas; Jorge Padilla, Director, Centro de Ciencias EXPLORA, Leon, Gto., Mexico; Elaine Reynoso, Universum, Direccion General de Divulgacion de la Ciencia, Mexico, D.F., Mexico; and Wendy McFarren, Executive Director, Quipus Cultural Foundation, Miami, Florida

**Born to Sing: Music, Learning, and the Human Mind****SA4**

Touchstone Energy Place / Room 4

Music is deeply rooted in our evolutionary past and activates the brain in a powerful way. Music professor Donald Hodges will present recent research on music and the brain, and evaluator (and musician) George Hein will lead a discussion on the implications for learning and creativity.

*Session moderator:* George Hein, Professor Emeritus, Lesley University (PERG), Cambridge, Massachusetts

*Featured speaker:* Donald Hodges, Professor of Music, University of North Carolina at Greensboro

*Sponsored by National Musical Arts*

**Building Capacity by Understanding Girls and Families****SA5**

Touchstone Energy Place / Room 5

To engage all of our visitors more deeply in science, it is critical to understand the specific needs of young female visitors and to identify effective strategies to serve them. Research, program models, and unique strategies from within and outside the science center community can contribute to success in reaching girls and, simultaneously, engaging their families and communities.

*Session leader/Presenter:* Dale McCreedy, Director, Gender and Family Learning, The Franklin Institute Science Museum, Philadelphia

*Presenters:* Joe Kelly, Executive Director, Dads and Daughters, Duluth, Minnesota, and Judy Koke, Office of Visitor Studies and Program Evaluation, Denver Museum of Nature & Science, Colorado

**Environmental Outreach: When Small Centers Get (Relatively) Big Money****SA6**

Touchstone Energy Place / Room 6

Learn about exciting multiyear outreach programs developed by two small centers to encourage teachers and students to take a new view of water and watersheds. See demonstrations that have been presented to elementary and middle school students, and participate in hands-on, water-based activities used in outreach locations.

*Session leader:* Adela (Laddie) Elwell, Executive Director, Headwaters Science Center, Bemidji, Minnesota

*Presenters:* Donald Cloutman, Associate Professor of Biology, Bemidji State University, Bemidji, Minnesota; Victoria Kuntz, Program Director, Gateway to Science, Bismarck, North Dakota; Elizabeth Demke, Executive Director, Gateway to Science, Bismarck, North Dakota; and Mark Schultz, Exhibit Director/HHMI Projector Manager, Headwaters Science Center, Bemidji, Minnesota

**Why and How Should Science Centers Engage the Public in Science and Technology Policy Issues?****SA7**

Touchstone Energy Place / Room 7

In this guest speaker session, Harvard researcher Adrian Ivinson will argue that science centers have a moral obligation to give the public a voice in decision making on science and technology policy, and North Carolina State University professor Jane Macoubrie will describe an experiment with real and online consensus conferences as an example of one way to give the public a voice.

*Session leader:* Larry Bell, Senior Vice President, Research, Design & Production, Museum of Science, Boston, Massachusetts

*Presenters:* Adrian Ivinson, Director, Harvard Center for Neurodegeneration and Repair, Harvard Medical School, Cambridge, Massachusetts, and Jane Macoubrie, Assistant Professor, Public & Interpersonal Communication, North Carolina State University, Raleigh

## Career Paths for Museum Educators and Designers SA8

Touchstone Energy Place / Room 8

Creating effective career paths for educators, scientists, and other "technical" staff not interested in management and administration is a challenge in the science museum field. How can we retain talented staff, offer opportunities for professional growth, and control turnover? For this discussion-based session, museum staff are asked to bring examples of organizational structure and career path.

*Session leader:* Steve Snyder, Vice President of Exhibit and Program Development, The Franklin Institute Science Museum, Philadelphia

*Presenters:* Jean Byrne, Director of Interpretive Services, The Franklin Institute Science Museum, Philadelphia; Kim Whaley, Vice President of Education, COSI Columbus, Ohio; and Dorothea Gumbrell, PHR, Director of Human Resources, The Science Museum of Minnesota, St. Paul

## Effective Use of Evaluation in Earth Science Exhibitions SA9

Touchstone Energy Place / Room 9

Hear evaluators and exhibit developers discuss the role that visitor research and evaluation played in the development of two earth science exhibitions. Presenters will share findings from front-end, formative, and remedial evaluation, and discuss how evaluation activities informed and influenced the development process.

*Session leader:* Elisa Israel, Research and Evaluation Supervisor, St. Louis Science Center, Missouri

*Presenters:* Ron Giesler, Earth Sciences Associate Director, St. Louis Science Center, Missouri; Lisa Mackinney, Program Evaluator, California Academy of Sciences, San Francisco, California; and Linda Kulik, Chair, Exhibits Department, California Academy of Sciences, San Francisco, California



## Shared Vision: An Indispensable Tool for Energizing and Aligning Your Work Unit SA10

Touchstone Energy Place / Room 10

How did Phil Jackson (L.A. Lakers coach), Duke Ellington (jazz bandleader) and Carly Fiorina (Hewlett-Packard CEO) achieve excellence with groups of very talented and dynamic people? Through shared vision. Learn how to develop this powerful tool for your department or organization by examining research and real-life examples and engaging in small-group activities.

*Session leader:* Ron Rohovit, Director of Education, Denver Museum of Nature & Science, Colorado

*Presenters:* Brian Taylor, Director, Science Alive!, The New Zealand Science Center - Science Alive, Christchurch, New Zealand; Cassie Carter, Director of Education, Montana Outdoor Science School, Bozeman, Montana; and David Chesebrough, President and CEO, Buffalo Museum of Science, New York



## Show and Tell: Feedback and Discussion for New Science Centers in Planning SA11

Touchstone Energy Place / Room 11

This session is based on science center projects currently in the planning phase. Representatives from each project will share what's new and innovative about their efforts, and the audience will be asked to offer feedback and share ideas that can be incorporated in the projects.

*Session leader:* Joe Wisne, President, COSI Studio, Columbus, Ohio

*Presenters:* Suzanne Wilcox, President, Helena Museum of Science and Discovery, Helena, Montana; Marcelo Knobel, Coordinator, Unicamp, Nucleci, Brazil; and Rob Vugtaveen, Marketing Director, Flandrau Science Center and Planetarium, Phoenix, Arizona

## The Best Damn Things We've Ever Done, Period: Wins and Flops in Events, Marketing, Programs, and Exhibits SA12

Touchstone Energy Place / Room 12

Welcome, snoopers! Learn the secrets of success. Find out what makes a "win"—a cheap exhibition that became a "hit," a fund-raiser that brought in gobs of money, an event that had 'em breaking down doors. (Also view some of the world's best flops!) Take back a truckload of sterling ideas. Bring your own "win/flop" to share.

*Session leader:* Linda M. Organ, Director of Education, Discovery Center for Science & Technology, Westlake Village, California

*Presenters:* Blair Clarkson, Coordinator, Special Events & Attractions Visitor Experience Branch, Ontario Science Centre, Toronto, Canada; Ann Fumarolo, President, Science Central, Fort Wayne, Indiana; Sharon Klotz, Director of Exhibits, Brooklyn Children's Museum, Brooklyn, New York; Paul Johnson, Senior Exhibit Developer, The Science Place, Dallas, Texas; Mike Katz, Director of Marketing & Development, Sciencenter, Ithaca, New York; Cindy Pittman, Public Relations Manager, Reuben H. Fleet Science Center, San Diego, California; Kerry Sautner, Training Manager, The Franklin Institute Science Center, Philadelphia; and Pam Smith, Director of Public Affairs and Marketing, Ann Arbor Hands-On Museum, Michigan

## **Pulling It All Together: How to Open a Museum with Class and Style** SA13

Touchstone Energy Place / Room 13

Opening a new museum, a new wing, or a major exhibition, or branding a new product created by your organization can be a daunting task—or an exciting opportunity. This program will feature case studies of successful museum openings and provide useful take-home tools.

*Session leader:* Kathleen Wilson, Vice President, Planning and External Relations, Science Museum of Minnesota, St. Paul

*Presenters:* Cookie Coleman, President, Cookie Coleman Company, Minneapolis, Minnesota, and Lory Sutton, Department Head, Marketing and Public Relations, Minnesota Historical Society, St. Paul, Minnesota

## **Innovative Ideas in Astronomy and Aerospace Education 2003** SA14

Touchstone Energy Place / Rooms 14 & 15

Ten presenters will each provide a brief overview (3 minutes or less) of innovative programs in astronomy and aerospace, including science exhibits, planetarium programs, student programs, NASA resource opportunities, and more. Afterwards, presenters will be available at the tables for one-on-one discussion.

*Session leader:* Mike Shanahan, Planetarium Manager, Bishop Museum, Honolulu, Hawaii

*Presenters:* Anita Sohus, Lead, Informal Education, Jet Propulsion Laboratory, Pasadena, California; Robin Symonds, Charles Hayden Planetarium Director, Museum of Science, Boston, Massachusetts; John Stoke, Informal Science Education Coordinator, Space Telescope Science Institute, Baltimore, Maryland; and Duke Johnson, Director of Programs, SciWorks Science Center, Winston-Salem, North Carolina

12:30 – 3:30pm

## **Seminar: Native Science, Gregory Cajete, and the Native Waters Exhibition** SA15

Science Museum of Minnesota / Classrooms 5 & 6

What is science? Does it exist in all cultures? What are its essential elements? These questions and more will be explored in this seminar based on a reading from Dr. Gregory Cajete's book *Native Science* and the viewing of Montana State University's *Native Waters* exhibition at the Science Museum of Minnesota

*Preregistration required.* This extended session at the Science Museum of Minnesota concludes at 3:30pm.

*Session leader:* Mary Ann Steiner, Director of the Youth Science Center, Science Museum of Minnesota, St. Paul

*Presenters:* Faith Bad Bear, Ethnologist, Science Museum of Minnesota, St. Paul; Lynn Baum, Program Manager, Student & Youth Programs, Museum of Science, Boston, Massachusetts; and Bonnie Sachatello-Sawyer, Director, *Native Waters*, Montana State University, Bozeman, Montana

## **Concurrent Sessions: 2:15pm – 3:30pm**



## **Urban Storytelling: A Forum on Interpreting the Urban Landscape** SA16

Touchstone Energy Place / Room 2

Geographers David Lanegran and Patrick Hamilton headline this forum on exhibit development inspired by city settings. We'll look at prototype exhibits from the preconference "Exhibit Graffiti" workshop in which participants collaborated with community partners to create wayside projects in downtown St. Paul. Share your own work in public spaces, and join a discussion on related partnerships, story criteria, graphic production, interactives, and new technologies.

*Session leader:* Chris Burda, Senior Exhibit Developer, Science Museum of Minnesota, St. Paul

*Presenters:* Patrick Hamilton, Director, Environmental Sciences and Earth-system Sciences, Science Museum of Minnesota, St. Paul, and David Lanegran, Professor and Urban Studies Program Coordinator, Macalester College, St. Paul, Minnesota



## **What the Media Really Want from Public Relations Professionals** SA17

Touchstone Energy Place / Room 3

Five members of major Minnesota media, representing television, radio, and newspapers, will tell museum PR professionals how they make those seemingly "snap" decisions on what receives coveted news coverage. Learn from the experts how much your pitch call, press release, visuals, and relationships affect the results of your PR campaign.

*Session leaders:* Carleen Pieper and Janine Hanson, Co-Directors of Public Relations and Communications, Science Museum of Minnesota, St. Paul, and Sarah Gardner, PR Coordinator, Science Museum of Minnesota, St. Paul

*Presenters:* Jane Helmke, Managing Editor, KARE-TV (NBC), Minneapolis, Minnesota; Margaret Hart, Advanced Planning Editor, KSTP-TV (ABC), Minneapolis, Minnesota; Jeff Strickler, Film Critic, *Minneapolis Star Tribune* and KARE-TV (NBC), Minneapolis, Minnesota; Susan Blanch, Executive Producer, WCCO-AM Radio (CBS), Minneapolis, Minnesota; and Ben Chanco, Reporter (retired), *St. Paul Pioneer Press*, Minnesota



## Discovering Soundscapes SA18

Touchstone Energy Place / Room 4

A lifetime as both a musician and a recorder and interpreter of vanishing environments has brought speaker Bernie Krause lessons about soundscapes both wild and designed. In this session, he shares his experiences in “discovering the voice of the natural world” and offers advice about designing sound environments in museums.

*Session moderator:* Kathleen McLean, Director, Center for Public Exhibition, The Exploratorium, San Francisco, California

*Featured speaker:* Bernie Krause, President, Wild Sanctuary Inc., Glen Ellen, California

*Sponsored by National Musical Arts*

## Evolution and Public Perception SA19

Touchstone Energy Place / Room 5

How should our institutions present evolution to audiences? How can we make the concepts of evolution more visible and accessible? How do we handle controversy about evolution? Join this discussion and share your insights with a panel of museum and university educators. Suggested strategies for presenting and supporting evolution will be compiled.

*Session leader:* Lee Schmitt, Director, Teacher Programs, Science Museum of Minnesota, St. Paul

*Presenters:* Randy Moore, Professor of Biology, University of Minnesota, Minneapolis; Jama Kolosick Education Director, University of Kansas Natural History Museum, Lawrence, Kansas; Jerry DeSilva, Coordinator, Life Science Interpretation, Museum of Science, Boston, Massachusetts; Kristi Curry Rogers, Curator of Paleontology, Science Museum of Minnesota, St. Paul; Andrew Redline, Director, Paleontology Program, Science Museum of Minnesota, St. Paul; Jessica Madole, Gallery Program Supervisor, Dinosaurs and Fossils, Science Museum of Minnesota, St. Paul; and Mark Edlund, Associate Scientist, St. Croix Watershed Research Station, Marine on St. Croix, Minnesota



## Making Field Trips Meaningful: Connecting Classroom Curriculum and Informal Institutions SA20

Touchstone Energy Place / Room 6

Learn how science centers are creating structured field-trip experiences that provide more than just a day off from school. Brainstorm ways to maintain a healthy balance between our motivation to be innovative and inquiry-based and the ever-increasing pressure on teachers to achieve higher test scores.

*Session leader:* Andrea Motto, Education Program Director, COSI Columbus, Ohio

*Presenters:* Robin Gose, School and Outreach Programs Manager, Amgen Center for Science Learning, California Science Center, Los Angeles; Maija Sedzielarz, Coordinator, School Visit Programs, Science Museum of Minnesota, St. Paul; and Ben Dickow, California Science Center, Amgen Center for Science Learning, Los Angeles



## Forum on Engaging the Public in Science and Technology SA21

Touchstone Energy Place / Room 7

In this follow-up to the earlier guest speaker session “Why and How Should Science Centers Engage the Public in Science and Technology Policy Issues?,” panelists will outline current approaches to engaging the public on policy issues, and the group as a whole will consider whether science centers should go further in this area, how we should do it, and what we need to learn to be successful.

*Session leader:* Larry Bell, Senior Vice President, Research, Design & Production, Museum of Science, Boston, Massachusetts

*Presenters:* Graham Farmelo, Director, Dana Centre Project, Science Museum, London, U.K.; Francois Vescia, Chief Editor-Cite en ligne, Cité des Sciences et de l'Industrie, Paris, France; and M.J. Morse, Program Manager, Current Science & Technology, Museum of Science, Boston, Massachusetts

## Shuffling, Segmenting, and Sorting: Integrating Marketing, Membership, and Fund-Raising SA22

Touchstone Energy Place / Room 8

Science centers have many different constituents: visitors, members, donors, and education participants. How do you communicate effectively with them all? How do you avoid internal turf battles? How do you maximize revenue while minimizing confusion? Join this roundtable discussion to find out what others have learned about their audiences.

*Session leader:* Eric Jensen, Director of Membership and Audience Development, Science Museum of Minnesota, St. Paul

*Presenters:* Katie Nyberg, Development Manager, Bell Museum of Natural History, Minneapolis, Minnesota, and Scott Steffen, Visitor Services Manager, The Bakken Museum, Minneapolis, Minnesota



## Innovative Programs for Students with Special Needs SA23

Touchstone Energy Place / Room 9

The Liberty Science Center has been developing programs that match the strengths of the science center to the needs of children and young adults with learning and emotional disabilities, autism, and developmental delays. Presenters will share thoughts on strategies and programming that create engaging learning opportunities for these students.

*Session leader:* Stephen H. Baumann, Vice President, Education and Programs, Liberty Science Center, Jersey City, New Jersey

*Presenters:* Tim Hill, Programs Manager, MOSI, Tampa, Florida; Anthony Aiello, Principal, Palisades Learning Center, Paramus, New Jersey; and Katherine Barrett, Director of Family Health, Lawrence Hall of Science, University of California, Berkeley



## Friendly Failure: When Failure = Success SA24

Touchstone Energy Place / Room 10

While some failures can turn a visitor away, “friendly failure” can provide empowering learning opportunities. We’ll explore this notion and reflect on how museum experiences can best cultivate and celebrate failure as a cornerstone of inquiry, exploration, and play.

*Session leader:* Sharon Klotz, Director of Exhibits, Brooklyn Children’s Museum, New York

*Presenters:* Patrick Tevlin, Associate Director, Science, Ontario Science Centre, Toronto, Canada, and Paul Martin, Director of Exhibit Development, Science Museum of Minnesota, St. Paul

## Armchair Tour of Early-Childhood Spaces SA25

Touchstone Energy Place / Room 11

Within a larger array of offerings, specialized early-childhood spaces can both provide an important educational experience and serve a crucial strategic role. In this design showcase, exhibit designers share plans, accomplishments, and challenges of their early-childhood spaces in a variety of venues.

*Session leader:* Joseph Wisne, President, COSI Studio, COSI Columbus, Ohio

*Presenters:* Mary Weiland, Exhibit Developer, Minnesota Children’s Museum, St. Paul, Minnesota; Jenny Sayre-Ramberg, Exhibit Developer, Monterey Bay Aquarium, Monterey, California; and Andrea Ambrose, Director of Education, Avampato Discovery (Sunrise) Museum, Charleston, West Virginia

## What Research Says About Girls and Technology SA26

Touchstone Energy Place / Room 12

Research indicates that many girls use technology differently than boys do and have different attitudes about its use and potential. In this update of a presentation first given at ASTC 2002, researcher Cornelia Brunner of EDC’s Center for Children and Technology will offer a review of the literature and what it may mean for exhibition and program development.

*Session leader:* Stephanie Ratcliffe, Vice President for Visitor Experience and Museum Operations, Natural History Museum of the Adirondacks, Tupper Lake, New York

*Featured speaker:* Cornelia Brunner, Associate Director, EDC’s Center for Children and Technology, New York, New York

## A Photographic Journey with Jim Brandenburg SA27

Touchstone Energy Place / Room 13

For years, Jim Brandenburg, one of the world’s premier nature photographers, has immersed himself in a Zen-like exploration of his craft. *Chased by the Light* and *Brother Wolf* are among his best-selling books. Recently, Jim reconnected with the natural Minnesota settings that were his earliest source of inspiration. This life-changing self-assignment led him back to the Northern Tallgrass Prairie of his childhood—and to an effort, through his Brandenburg Prairie Foundation, to reclaim this fragmented ecosystem.

*Session moderator:* Joel Halvorson, Educational Technology Fellow, Science Museum of Minnesota, St. Paul

*Featured speaker:* Jim Brandenburg, Natural History Photographer, Ravenwood Studios, Minnesota

## When Good Plans Go Bad SA28

Touchstone Energy Place / Rooms 14 & 15

From parking to accessibility to storage and more, museums struggle with the challenges of their facilities every day. In this showcase, museum professionals who have been through the construction or reconstruction of their buildings will share some of their worst facility headaches. Expect to leave this session with a list of what not to do.

*Session leader:* Charles O’Connor, Vice President for Exhibits, COSI Columbus, Ohio

*Presenters:* Charlie Walter, Interim Director, Fort Worth Museum of Science and History, Texas, and Eleanor Kulin, Marketing Manager, The Gulf Coast Exploreum Science Center, Mobile, Alabama

3:30pm – 4:00pm  
**Exhibit Hall Coffee Break**

*Sponsored by Jack Rouse Associates*

### Concurrent Sessions: 4:00pm – 5:15pm

#### **High-Definition Video: Get the Picture? SA29**

Touchstone Energy Place / Room 13

High-definition digital video (HDTV) promises to revolutionize museum exhibits and large-screen theaters with its stunning images, affordable content, and networked distribution. Featuring five times the resolution of DVD, HDTV lets us produce 35mm-film-quality content at a fraction of the cost and distribute it via the Internet. This session starts with the basics, showcases the state of the art, and explains how easy it is to get involved with this new medium.

*Session leader:* Joel Halvorson, Educational Technology Fellow, Science Museum of Minnesota, St. Paul

*Presenters:* Geralyn Abinader, Senior Media Producer (HD in exhibits), American Museum of Natural History, New York City; Frederick Grossberg, President, (Interactive HD), Mill Reef Productions, Washington, D.C.; and Bill Lange, Research Specialist (HD in research), Woods Hole Oceanographic Institute, Woods Hole, Massachusetts

#### **Tricks of the Trade: A Dialogue on Budgeting and Contracts SA30**

Touchstone Energy Place / Room 4

Bring your thorniest questions with you! Be they about fee structures, estimating strategies, or contract terms, come stump the chumps and be part of the discussion. An extension of last year's panel on consultants, this interactive session brings together panelists experienced in both capital projects and ongoing operations.

*Session leader:* Barbara Punt, Principal, Punt Consulting, Redondo Beach, California

*Presenters:* Scott Lewis, President, Oppenheim Lewis, Inc., San Francisco, California; Bill Booth, President and CEO, COSI Toledo, Ohio; Kim Hunter, Director of Programs, Science Center of Iowa, Des Moines; and Charlie Walter, Interim Director, Fort Worth Museum of Science and History, Texas

Place Research Casting International Ad on CD here

## Center for Informal Learning and Schools: Current Research SA31

Touchstone Energy Place / Room 5

This session will highlight three CILS research studies that examine the nature of informal learning and its implications for our work with formal systems of education. After questions and general group discussion, smaller break-out groups will explore and discuss the implications.

*This extended session concludes at 6:00pm.*

*Session leader:* Bronwyn Bevan, Director, Center for Informal Learning and Schools, The Exploratorium, San Francisco, California

*Presenters:* Barbara Rogoff, Professor, University of California, Santa Cruz; Jonathan Osborne, Professor, King's College London, U.K.; Mark St. John, President, Inverness Research Associates, Inverness, California; and Leona Schauble, Professor, Vanderbilt University, Nashville, Tennessee

## Facilitating Community Connections SA32

Touchstone Energy Place / Room 6

Museums have many resources to draw on within their respective communities. The process of tapping these resources can strengthen the museum, often by involving previously uninvolved community sectors in programming and by attracting new patrons to new events.

*Session leader:* Ruth Netting, Policy Analyst for Technology & Education, NASA Office of Space Science, NASA Headquarters, Washington, D.C.

*Presenters:* Nancy Leon, Lead, NASA Space Program, NASA/JPL, Pasadena, California; Terry Mann, Vice President, Astronomical League, West Manchester, Ohio; and Barry Beaman, Outreach Coordinator, Astronomical League, Rockford, Illinois



## Engineering Change: Critical Roles for Science Centers in Achieving Technology Literacy SA33

Touchstone Energy Place / Room 7

As dean of the School of Engineering at Tufts University, Ioannis Miaoulis led the initiative that made Massachusetts the first state to raise educational standards in technology and engineering to the level of those in science and mathematics. In this guest speaker session, Dr. Miaoulis, now president of Boston's Museum of Science, will describe how the museum is taking a central role in implementing the new standards.

*Session moderator:* Cary Sneider, Vice President, Education Programs, Museum of Science, Boston, Massachusetts

*Featured speaker:* Ioannis Miaoulis, President and Director, Museum of Science, Boston, Massachusetts



## Broadening Your Audience Base: Tapping Into the Insight of Minority Young Adults SA34

Touchstone Energy Place / Room 8

This extended session will present the voices of minority young adults who were meaningfully involved in youth programs in two science centers. Beginning with a presentation of the research findings of a longitudinal study and continuing in small-group discussions with alumni from SMM's Youth Science Center, this session will generate strategies for attracting 18- to 25-year-olds as visitors, advocates, and volunteers.

*This extended session concludes at 6:00pm.*

*Session leader:* DeAnna Banks Beane, Director, Partnerships for Learning, ASTC, Washington, D.C.

*Presenters:* Myla Pope, Fourth/Fifth Grade Teacher, St. Paul Public Schools; Laura Espinosa, Student/Filmmaker, St. Paul; Hugo Cardona Wong, Freelance Multimedia Designer, St. Paul; Kayode Aduwumi, Student, Computer Science, University of Minnesota, St. Paul



## Considering Biodiversity: Effective Education and Evaluation Approaches SA35

Touchstone Energy Place / Room 9

Studies from the development and evaluation of exhibitions, programs, and curricula on biodiversity, conservation, and the environment raise challenging issues. What impact can museums appropriately expect to have on visitors' attitudes and values? Which strategies produce effective learning outcomes? Which elements affect visitors' behaviors positively? Panelists will report on evaluation projects and consider how results can be synthesized to develop effective strategies.

*Session leader:* Ellen Giusti, Coordinator of Exhibition Evaluation, American Museum of Natural History, New York City

*Presenters:* Kirsten Ellenbogen, Senior Associate, Institute for Learning Innovation, Annapolis, Maryland; Alexander Goldowsky, Director of Programs and Exhibits, EcoTarium, Worcester, Massachusetts; and Joe Heimlich, Associate Professor, The Ohio State University, Columbus

### **From Information Technology Toward Creative Technology SA36**

Touchstone Energy Place / Room 10

Have “information technologies” channeled museums into an information-centric view of learning? What are the opportunities and challenges of shifting from an Information Society to a Creative Society? This panel will discuss alternative uses of digital technologies that support a more “constructionist” approach to learning, integrating artistic expression with playful engineering.

*Session leader:* R. L. “Chip” Lindsey, Director of Visitor Programs, Fort Worth Museum of Science and History, Texas

*Presenters:* Mitchel Resnick, Associate Professor of Learning Technology, MIT Media Lab, Cambridge, Massachusetts; Brian Silverman, President, Playful Invention Company, Cambridge, Massachusetts; Karen Wilkenson, Education Specialist, The Exploratorium, San Francisco, California; and Mike Petrich, Education Specialist, The Exploratorium, San Francisco, California

### **Humanities Seminar: Oedipus the King SA37**

Touchstone Energy Place / Room 11

Oedipus, king of Thebes, seeks to learn the cause of the plague that afflicts his city. The knowledge he seeks destroys him even as it saves the city. What does Sophocles’ play say to us as we seek to carry out our organizations’ missions in the modern world?

*Preregistration required.*

*Session leader:* J. Shipley Newlin Jr., Director of Physical Sciences and Technology, Science Museum of Minnesota, St. Paul

*Presenter:* Thomas King Simpson, Professor Emeritus, St. John’s College, Saratoga Springs, New York

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## Peer Clusters: An Innovative Approach to Evaluating Programs SA38

Touchstone Energy Place / Room 12

The Peer Cluster model offers an alternative to traditional, and sometimes dreaded, "outside in" evaluation approaches. Program directors from science centers, universities, and school systems will share how they built internal capacity for program evaluation by learning new techniques and fresh perspectives from colleagues in diverse organizations.

*Session leader:* Bill Watson, Education Director, Gulf Coast Exploreum Science Center, Mobile, Alabama

*Presenters:* Caroline Lewis, Education Outreach, Fairchild Tropical Garden, Coral Gables, Florida; Libby McCann, Program Manager, Earth Partnership for Schools, University of Wisconsin-Madison Arboretum, Madison, Wisconsin; Sandra Shmookler, Program Director, Teacher Internship Program, Montgomery County Public Schools, Rockville, Maryland; Mark D. Hertle, Senior Program Officer, Howard Hughes Medical Institute, Chevy Chase, Maryland; and Peter York, Director of Evaluation, Senior Consultant, The Conservation Company, Philadelphia, Pennsylvania



## Educator's Showcase: Favorite Activities for Teachers SA39

Touchstone Energy Place / Rooms 14 & 15

Museum educators from many institutions will showcase their favorite inexpensive science activity. Participants can try the activities, talk to their creators, and take home many new ideas.

*Session leader:* Don Salvatore, Education Associate, Public Programs, Museum of Science, Boston, Massachusetts

*Presenters:* Julie Berger, Science Center Specialist, Lawrence Hall of Science, University of California, Berkeley; Kerry Sautner, Manager of Training, Interpretive Services, The Franklin Institute Science Museum, Philadelphia; Rachel Smith, Director of Public Programs, Arizona Science Center, Phoenix; Tree Davidson, Director of Public Programs, McWane Center, Birmingham, Alabama; Jeanne Norris, Special Programs Coordinator, Sci-Tech Museum, Aurora, Illinois; Joaquin Fargas, Executive Director, Centro Científico Tecnológico, Buenos Aires, Argentina; Jonah Cohen, Outreach & Public Programs Manager, Science Center of Connecticut, West Hartford; Heather Gibbons, Origins Curriculum Development Supervisor, Pacific Science Center, Seattle, Washington; and Martin Fisher, Director of Education, Nauticus, The National Maritime Center, Norfolk, Virginia

## SMM Scale: The Big and the Small of It SA40

Science Museum of Minnesota / Classrooms 5 & 6  
How do museums use scale to communicate ideas? How do we teach about something that is too big or too small or too far away to grasp easily? Led by Science Museum of Minnesota youth staff, participants will explore SMM's exhibit halls to examine the many ways the museum uses scale to convey ideas.

*Preregistration required.* This session will be held at the Science Museum of Minnesota.

*Session leader:* Mary Ann Steiner, Director of the Youth Science Center, Science Museum of Minnesota, St. Paul

*Presenters:* Chris Robinson, Math Team Project Lead, Science Museum of Minnesota, St. Paul, and Lynn Baum, Program Manager, Student & Youth Programs, Museum of Science, Boston, Massachusetts

5:00pm – 6:30pm

### Exhibit Hall Welcoming Reception

ASTC 2003 Exhibitors welcome conference delegates to this year's Annual Conference Exhibit Hall. Join Exhibitors and discover the latest innovations in products and services available to science centers and museums.

*Sponsored by Panasonic*

7:00pm – 11:00pm

### Saturday Night at the Science Museum of Minnesota: "Learn to Have Fun, Minnesota-Style!"

You may think you know a lot about Minnesota—cold winters, hot dishes, and a peculiar way of pronouncing the letter "O"—but you could still have a lot to learn about this magnificent state! Saturday night will offer you just a small sample of the incredible diversity and richness found in Minnesota. Taste foods from some of the ethnic groups that contribute to Minnesota's rich culture. Take a swing dance lesson, and then dance to the highly entertaining Vic Volare and the Volare Lounge Orchestra. Participate in the Science Museum's theater and demonstration programs. Enjoy an on-site mini-spa experience. Hear local and national music from DJ's and live musicians. Come have fun . . . and learn what it means to be Minnesotan!

*Donations for the Science Toy & Book Drive will be collected at this event.*